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Lecture.

FRENCH THEORIES ON CHOLERA.

BY M. LEREBOULLET,
Of the Paris Faculty.

The question of the day before the French Academy is cholera at every point of view. Among the most important communications are those on prophylaxis of the disease by M. Noël Gueneau de Mussy, which have their foundation in the similarity of propagation of typhoid fever and cholera.

It is very evident that the French savants have keenly felt the discovery by the German professor, Koch, of a microbe, special to the disease, in the intestinal dejections of choleraic patients, after the scientific envoys of M. Pasteur to Alexandria had asserted that none such existed.

In a recent article on the subject, M. Lereboullet, of the Paris Faculty, very largely considers this part of the subject.

MM. Straus and Roux have studied at Alexandria and Toulon the pathological anatomy of cholera. They found that the lesions observed were identical in both epidemics. They have sought to discover, with the greatest care (and their competence in such research is undeniable), if there existed any microscopic organism which might be considered as the specific infectious agent of the disease and they have failed to find any such bacillus or microbe.

Well acquainted with the works of Prof. Koch, having assisted in his researches, using the same reagents, they have, like him, found that in the intestinal dejections of individuals dying of cholera there existed a microbe of special dimensions and form. But, on the other hand, they have found that this microbe was not always present; and, again, that it could be found, not only in cholera, but also in ordinary dysenteric dejecta (malassez), in the vaginal mucus of women suffering from leucorrhœa, and in the uterine secretions of a woman having epithelioma of the os.

These observations would seem to prove that the exterior form of a microbe is not sufficient alone to characterize it, and that in the absence of direct proof, which might result from a fertile inoculation, the affirmation of M. Koch must be received with a certain amount of reserve. One fact is of very great importance, and that is the very rapid multiplication and constant appearance of these bacilli in the intestinal mucus of subjects dying very suddenly from cholera.

If, as has been asserted, a large number of these microbes be found in the intestinal mucus rapidly taken from the subject just after death from the disease, and if these special microbes described by Prof. Koch are also found later in the course of the malady, it may be possible that they constitute the infectious agent in the disease.

But whatever be the value of this pathologic discovery, it must be admitted, that of all the maladies possessing elements of contagion and infection, cholera, in its modes of evolution and transmission, appear most compatible with the hypothesis of causation by an animated germ or microbe.

If it be proven later that Prof. Koch has been mistaken as to the form and nature of the bacillus described by him, it is probable that some other

observer may discover a characteristic element remaining fertile after several cultures.

What remains demonstrated, and has even been admitted by M. Jules Guerin, is the transmissibility of the malady, or, in other words, its contagiousness, a fact established by a number of well-authenticated observations.

But if, as has been admitted, cholera is transmissible from the sick to those in health, it is no less proven that the elements of contagion are contained in the choleraic dejections, that is in products elaborated in the intestine, rich in infectious germs, and, whether or not the doctrine of Pettenkofer be admitted, susceptible of reproduction in the soil where such dejections are deposited. After such reproduction, these germs undubitably acquire greater virulence, and transmit the malady through drinking water and by means of alimentary products, on which they may be deposited.

If the truth of these assertions be recognized, it appears difficult to admit any points of resemblance between this very grave epidemic disease and the cases of sporadic cholera or cholera morbus which occur during the hot months. M. Ernest Besnier has presented a very clear exposé of this part of the subject.

At a clinical point of view, cholera morbus, or cholera nostras, as it is sometimes called, may present, in certain very exceptional cases, some analogy with Asiatic cholera. But it never kills within a short period of time a large number of individuals, as does the other. From 1875 to 1883 it caused but 120 deaths at Paris out of a population of 2,300,000; that is, only about 14 each year. Again, this summer cholera attacks at the same time many cities more or less distant from each other: it does not invade successively one city after another where individuals have arrived, in apparent health, from the city first affected.

Epidemic cholera breaks out suddenly in a city after the arrival of a vessel from an infected port, or soon after the introduction of germs, imported by individuals coming from a city already attacked by the epidemic.

Epidemic cholera, causing in a short space of time numerous deaths, has never been spontaneously developed in a city far from the seaboard, like Paris, Vienna, or Berlin. In every epidemic the malady has raged for a certain length of time in the seaports before appearing in these central cities. The fact that the disease seems to appear simultaneously in different parts of the city, does not prove that it was not originally the result of contagion.

As regards the present epidemic, the cholera which first took root in one quarter of Toulon (La Division), did not appear at Marseilles until after the arrival in the latter city of individuals emigrating from Toulon, and at the commencement of the epidemic the first cases were traced to two places from which they originally started. The same observation was often made in anterior epidemics. It will suffice to prove this to read the instructive memoir contributed by M. Jules Worms to the *Gazette Hebdomadaire* in 1865.

But even when the direct filiation of all the cases related cannot be established, a few negative cases will not suffice to offset the great number of positive facts, which demonstrate that the epidemics follow one on the other, and that it was possible in 1865, as in the preceding epidemics in 1822, in 1830, and in 1846, to follow, step by step, the progress and extension of cholera.

M. Jules Guerin has very ably attempted to demonstrate that cholera is often developed spontaneously in the large cities, where it appears in the same manner as summer cholera; but, if he considers the history of anterior epidemics, he will find it difficult to escape the fact that their course and importation from city to city has been distinctly traced. And if he recognizes this extension as occurring in any one epidemic from one place to another, how can he reconcile this fact with the doctrine he has attempted to demonstrate, of the identity of epidemic cholera with the cholera morbus of the hot months.

We repeat what we have already said regarding the very rapid progress of the disease, which has swept away so many victims at Toulon and Marseilles. "If it be admitted that the choleraic germ is developed in the intestines and transmitted by the dejections, it can be very readily understood how different quarters of the same city may appear to become infected at the same moment. It is generally admitted that at the debut of the epidemic, some of the individuals affected are at first, during the period of prodromic or premonitory diarrhœa, able to be about and attend to their usual occupations. By such patients several quarters of a city might be almost simultaneously infected through the water-closets and sewers into which their choleraic discharges find their way. Another source of rapid spread of the disease would be by provisions coming from infected houses.

"If it be necessary to reject, in part, the telluric theory advanced by Pettenkofer, as it explains neither the epidemics developed on board ships, nor the transmission of cholera by cloth-

ing and merchandise, still he may be in the right when he asserts that the choleraic germ, in order to become noxious and infectious, has to undergo certain transformations similar to those observed in animals of alternating generations? This doctrine, if true, would explain why direct inoculation of the disease has been attempted in vain. It explains, also, the sterility of the germs collected by Koch and cultivated in liquids, perhaps, unfavorable to this transformation."

Perhaps this theory would also account for the fact that the cholera seems to disappear in Provence and in Italy without attacking the large cities, which are better cared for, at a hygienic point of view, and therefore do not offer a soil so favorable for the production and propagation of the infectious germs.

We have already remarked, when citing the proportion of deaths in anterior epidemics, that, like most exotic diseases, which seem to gradually become extinguished in places which have been several times attacked, cholera diminishes in gravity. The epidemic of 1873, which was certainly imported from without, disappeared after attacking several cities of Normandy and Paris, where it caused but 855 deaths. It is to be hoped that such may be the case for the present epidemic. That the disease has not already attacked Paris and other northern cities, notwithstanding the numerous ways of communication and the absence of prophylactic measures, must undoubtedly be due to the vastly improved hygienic conditions in all the large towns.

COMMUNICATIONS.

METRICAL ANATOMY.

BY JOHN M. WHITE, M. D.,
Of Pleasant Ridge, Ala.

THE EYE.

The antero-post. diameter of the eyeball is about an inch, and exceeds the transverse by about one line. The segments of the larger sphere forms about $\frac{5}{6}$ of the globe, and the smaller shere forms the remaining $\frac{1}{6}$. The cornea forms the anterior $\frac{1}{8}$ of the globe, and is 10 to 11 mm. in diameter. "It is not quite circular, being a little broader in the transverse direction." The larger ciliary processes are each about "$\frac{1}{10}$" of an inch in length. The circular fibres of the iris form a band about "$\frac{1}{250}$ of an inch" in width. The ciliary ligament is about $\frac{1}{400}$ of an inch thick. The ciliary muscle is a circular band about $\frac{1}{8}$ of an inch broad on the outer surface of the fore part of the choroid. The optic nerve enters the retina about $\frac{1}{10}$ of an inch to the inner side of the yellow spot. The lens is $\frac{1}{3}$ of an inch in the transverse diameter, and its anterior-post. diameter $\frac{1}{4}$ of an inch, and is about this distance behind the cornea. The canal of Petit is $\frac{1}{10}$ of an inch wide.

THE EAR.

The auditory canal, from the bottom of the concha to the membrana tympani is an inch and a quarter in length, "is curved upon itself so as to be higher in the middle than at either extremity." The cartilaginous portion is about $\frac{1}{3}$ an inch in length, and the osseous portion is about $\frac{3}{4}$ of an inch in length, and narrower than the cartilaginous portion. "Its inner end is smaller than the outer," being 7 to 9 mm. in diameter. "The anterior wall projects beyond the posterior about 2 lines."

THE MIDDLE EAR.

The cavity of the tympanum measures about 5 lines from before backwards, 3 lines in the vertical direction, and between 2 and 3 in the transverse, being a little broader behind and above than it is below and in front." The Eustachian tube is from an inch and a half to two inches in length. "The osseous portion is about $\frac{1}{2}$ an inch in length," and at its lower end it is 2 to 3 mm. in diameter. The cartilaginous portion is about 1 inch in length. Its canal is narrow behind, wide and expanded in front, terminating by an oval orifice at the upper part and side of the pharynx, behind the back part of the inferior meatus. Where it opens into the pharynx, it is perhaps 4 mm. or more in diameter, but it is capable of dilatation or contraction.

THE INTERNAL EAR.

"The vestibule measures about $\frac{1}{5}$ of an inch from before backwards, as well as from above downwards, being narrower from without inwards." The semi-lunar canals measure about $\frac{1}{250}$ of an inch in diameter, and the ampulla measures a little more than $\frac{1}{10}$ of an inch. "The cochlea measures about a $\frac{1}{4}$ of an inch in length, and its breadth towards the base is about the same." The spinal canal is $1\frac{1}{2}$ inches in length along its outer wall. The commencement of the canal is $\frac{1}{10}$ inch in diameter. The membranous semi-circular canals are about $\frac{1}{3}$ the diameter of the osseous canals.

In tenotomy of the tensor tympani the knife may be passed about 3 mm. into the tympanum.

THE NASAL FOSSA.

From floor to roof of nasal fossa measures about 4 cm. From near anterior nasal spine at margin

of the anterior nares to front part of inferior turbinated bone, is 15 to 17 mm. From anterior nasal spine to post-nasal spine is 5 cm. From lower lateral margin of anterior nares near anterior nasal spine to lower lateral margin of the post nares is about 5 cm. The two anterior nares will measure 25 mm. in the transverse direction at the lower part, measuring across the post-nares from one hamular process to the other, it is 3 cm. "Each aperture of the post-nares measures about an inch in the vertical, and half an inch in the transversal direction." The anterior palatine canal is 3 to 4 mm. within the margin of the nares. From post-nasal spine to bony opening of the Eustachian tube is 45 mm., and it is 20 mm. from post-nasal spine to where the Eustachian tube opens into the mucous membrane of the pharynx.

THE MOUTH.

From the incisor teeth to post-nasal spine it is 52 mm. The post-palatine canal is 14 to 15 mm. deep and 2 to 3 mm. in diameter. One is sometimes larger than the other. They are situated 5 cm. from the incisor teeth. From canine tooth of the opposite side to the osseous opening of the Eustachian tube is 90 to 93 mm., and from same tooth to membranous opening of the Eustachian tube it is 65 mm. From incisor teeth to tip of the hamular processes is 55 to 56 mm. The hamular processes are 2 cm. from the post-nasal spine. "The duct of the parotid gland is about 2½ inches" in length and about 1 mm., or a little more, in diameter. Wharton's duct is 2 inches in length.

"THE PHARYNX

is about 4½ inches in length and broader in the transverse than in the antero-posterior diameter."

THE ŒSOPHAGUS

is about nine inches in length and its coats about 2 to 3 mm. in thickness. A knowledge of the distance from the incisor teeth to hamular processes and post-nasal spine is useful in the operation of staphyloraphy. The hamular processes project below the margin of the hard palate very near 1 cm., and sometimes not beyond 8 mm.

BASE OF THE SKULL—EXTERNAL SURFACE.

The vidian canal is about 9 mm. deep and less than 1 mm. in diameter. The pharyngeal spine is 33 mm. from the posterior nasal spine. The foramen ovale about 4 or 5 mm. in diameter transversely is 3 cm. from the tip of the hamular processes and about 21 mm. from tip of the external pterygoid process. It is 8 or 9 mm. from its inner side to the outer side of the foramen lacerum medium at vidian canal. About 4 or 5 mm. behind the foramen ovale is the foramen spinosum it is nearly 1 mm. in diameter and 6 mm. in depth. The spinous process of the sphenoid is about 23 mm. from the vidian canal, and the vidian canal and foramen lacerum medium is 34 mm. from the posterior nasal spine. The styloid process at its middle is 44 to 45 mm. from the hamular process, and is 10 mm. from the lower margin of the ext. auditory canal. It is "about an inch in length," and varies in size and shape, and is 14 mm. from the spinous process of the spheroid. The styloid process is 45 mm. from the hamular process, and 3 cm. from tip of external pterygoid process, measuring from its base. The stylo-mastoid foramen is 1 mm. or a little more in diameter. The foramen lac. medium is 8 mm. in its transverse diameter, and 2 cm. from same foramen of the opposite side, and 12 mm. from upper and posterior part of the vomer. The carotid canal is 7 mm. in diameter and 12 mm. in depth and its inner edge is 15 mm. from the foramen lac. medium. It is 5 to 6 mm. from its anterior margin to the osseous opening of the Eustachian tube, and 11 mm. from nearest part of the foramen ovale. It is 10 mm. from base of the styloid process. The vidian canals are 35 mm. apart. The foramina ovale 55 mm. apart. The foramina spinosum 65 mm., and the osseous opening of the Eustachian tube 60 to 62 mm. apart. The carotid foramina are about 55 mm. apart.

THE ZYGOMATIC FOSSA AND SPHENO-MAXILLARY FOSSA, ETC.

Twenty-five mm. is the distance from the zygoma where it articulates with the molar to the surface of the sphenoid just above the pterygoid ridge, measuring in a horizontal direction, but the distance varies somewhat, not being the same on both sides. The foramen ovale is 45 mm. from the zygoma, where it articulates with the molar. From same point on zygoma to surface of external pterygoid plate near its root is 37 to 42 mm. It is about 42 mm. from the zygomatic articulation to the lower part of the pterygo-maxillary fissure. From zygomatic articulation to inner wall of the spheno-maxillary fossa is 45 to 47 mm., though there is a slight difference in depth in the two sides. From under part of zygoma where it articulates with the molar to external opening of the foramen rotunda is about 37 mm. The foramen rotunda is 4 to 5 mm. in depth, and from same point to external opening of the vidian canal it is 46 mm. (See REPORTER, February 23, 1884.)

Correction.—The infra-orbital canal is about 12 mm. in depth to where it ceases to be a canal, and

measuring through it to the spheno-maxillary fissure it is about 25 mm., and not 17 mm. in depth as stated before. The depth and size of this canal should be considered in the operation of gouging out the second branch of the fifth nerve for cure of neuralgia. The foramen magnum is 4 cm. antero-posteriorly, and 3 cm. in its transverse diameter, measuring from just behind the condyles. Its anterior margin is 43 mm. from the posterior nasal spine.

REMARKS.

The above measurements are for the adult—they vary, of course, in different individuals somewhat. They do not *vary*, however, more than the measurements of different pelves, and they will, I hope, be of service to the surgeon as pelvic measurements are of service to the obstetrician. If people generally knew that the distance from the bottom of the concha to the membrana tympani is only 1¼ inches, perhaps they would not so often rupture this membrane by introducing hairpins, etc., too deeply into the ear. A knowledge of the metrical anatomy of the eyeball, and the distance to the lens may be useful in the operation of removing cataract. The metrical anatomy of the nasal fossa will show to the surgeon the size to make his plug in the operation of plugging the posterior nares; it will aid him in removing foreign substances from the nose, and in introduction of the Eustachian catheter. A knowledge of the metrical anatomy of the base of the skull, its foramina, and their metric relations to the pharynx, may be useful to the surgeon (as the distance from the posterior nasal spine to the anterior margin of the carotid foramen is 56 mm., or 5 cm., and the posterior margin of the carotid foramen is 43 to 45 mm. from the tip of the hamular process). If he deems it practicable to make compression on the internal carotid artery at the carotid foramen in case of wound of this vessel, it may aid in the operation of division of the second branch of the fifth nerve for cure of neuralgia, by showing the depth of the zygomatic fossa, and by showing the metrical position of the styloid process; it may be useful in operations on the parotid gland. The thickness of the walls of the pharynx should be noticed in the operation for stricture of it.

ON MEMBRANOUS CROUP.*

BY R. W. HUTCHESON, M. D., M. R. C. S.,
Of Queen's County, N. Y.

I will briefly relate the particulars of a case which recently came under my care. It is that of a girl, aged 13, residing at the village of Baldwin. About three weeks previous to her illness she suffered from a severe sore throat, which was attended with fever, enlargement of the glands of the neck, white patches in the throat, and fœtid breath. As the mumps were prevailing in the neighborhood at the time, her friends came to the conclusion that she was suffering from that disease, and consequently did not seek the advice of a physician. The girl, however, was kept within doors until the 11th of March, when, although still suffering from general weakness, she persuaded her mother to allow her to go to Sunday-school. In consequence of the exposure, she was taken seriously ill that night with fever, hoarseness, and dyspnœa, and was unable to sleep. She was no better on the following day. On Monday night, March 12, she became so much worse that her friends thought she would die before morning. I saw her on the 13th. I found her sitting up, being unable to lie down; her countenance was pale and somewhat bloated; temperature, 102; pulse small, weak, 120 in frequency; respiration, 30. Her voice was husky and almost suppressed; there was a frequent cough, which was dry, brassy, suffocative; in other words, croupy—a sound somewhat difficult to describe, but when once heard, can never be forgotten. The tonsils were congested and enlarged, and indentated from previous ulcerations. There were also numerous white spots scattered over them, about the size of duck-shot, which were evidently of recent date. The tongue was coated; bowels regular; urine free from albumen.

I ordered the patient to be put into a warm room with a temperature of 75° F., and that the air should be saturated with steam. I also directed the patient to inhale steam from lime-water for twenty minutes every two hours, unless she should sleep. This had a salutary effect. It moistened the air-passages, thinned the secretion, and thus enabled the patient to expectorate more easily. The medicine prescribed was twenty drops of the balsam of copaiba, with glycerine and gum, taken every two hours. Her diet consisted of beef-tea and a liberal supply of milk.

In consequence of this plan of medication the more urgent symptoms were arrested, and continued so until Thursday morning, March 15, when, after a severe paroxysm of coughing, the patient was seized with a violent fit of suffocation; after which, the dyspnœa increased and became more noisy. These attacks were renewed in frequency and violence, the patient becoming

*From a paper read before the Queen's County (N. Y.) Medical Society.

almost black in the face, and each fit of suffocation threatening a speedy dissolution.

The girl was now very restless; beads of perspiration covered the skin, and each muscle of respiration was exerting itself to draw air into the lungs. The neck thus appeared elongated, and the supra-sternal region hollowed out; while the epigastric region was drawn in, the lower ribs collapsed and the respiratory murmur suppressed.

It was thus evident to all present that unless some relief could be obtained the girl could not survive many hours. I, therefore, suggested tracheotomy as a dernier resort. I explained the operation to the patient and friends, who at once consented to have it done—the girl, now fully realizing her condition, nodding assent thereto.

I procured the services of my friend, Dr. G. Hammond, of Freeport, who very kindly assisted me. Chloroform was administered, but not in sufficient quantity to produce complete insensibility. I had very little difficulty in making the incision and introducing the canula. The relief was immediate, the friends at once exclaiming, "How easily she breathes." The relief was visible to all.

For four days we found that by closing up the outer orifice of the canula no air could pass through the larynx; but on the fifth day, after hawking up some hard lumps, the air passed readily, and on the sixth day after the operation I removed the canula, and closed the wound. The wound healed very readily, and the patient made a rapid recovery.

I might mention that several of those who sat up with the girl and assisted in nursing her, were taken down with fever and sore throat with white patches, thus showing the infectious nature of the disease.

This is a case of common occurrence; every practitioner of medicine is called upon to treat cases of this description every year. Although generally very unsatisfactory to manage, they are nevertheless very interesting cases. Take, for instance, the diagnosis: Under what nosological head would you put the above-mentioned case? Some of you would say, Why, it is a case of croup; others, No, it is laryngitis; while probably those of you who are acquainted with the latest writings on the subject would call it diphtheria. The poet says that a rose would smell as sweet with any other name. So we find that in this case the pathological condition is the same whether you call it croup, laryngitis, or diphtheria, to wit, an inflammation of the larynx, leading to the formation of a pseudo-membrane, which, acting mechanically, prevents the access of air into the lungs, thus causing asphyxia.

It may be mentioned once for all, that these remarks have no reference to what is called catarrhal croup, or catarrhal laryngitis, which is generally a simple affair, and only proving fatal through the grossest neglect and bad management. It is generally more sudden in its accession, and is attended in a marked degree with what is called a neuropathic element, namely, spasm of the muscles of the larynx. The cough in catarrhal croup is therefore more sonorous, with less of the metallic ring about it than in that of the more formidable pseudo-membranous variety. Emetics, too, act very differently in the two diseases: they are specific in the one case, while they are dangerous in the other, and generally lessen the chance of recovery.

You are all familiar with the fact that at the present time there is a sharp controversy going on among pathologists and physicians with regard to the identity or non-identity of the pseudo-membranous croup and diphtheria. On the whole, it appears that the former theory is gaining ground; and accordingly we find that in the more recent works on the Practice of Medicine (Bristow's, for example), the two diseases are classed under the same head.

Without going very deeply into the controversy (for you are all familiar with the subject), let me mention briefly one or two points that have been brought forward in opposition to the theory that they are identical.

First. It is argued by some that diphtheria is a blood disease, and pseudo-membranous croup only a local trouble. This, I conceive, is a distinction without a difference. We are all familiar with the fact that diphtheria more often kills by asthenia than by apnœa; and yet, when a membrane does form in the larynx in a recognized case of diphtheria, has any one been able as yet to point out any difference between that membrane and the one formed in an ordinary case of pseudo-membranous croup?

It is my firm conviction, after some years of observation and study, that whenever we have an inflammation of pharynx or larynx, which is attended with the formation of a pseudo-membrane, the affection may be set down as due to diphtheria. And I think if you would investigate all the cases of pseudo-membranous inflammation of the larynx, which come under your observation, you will find that if there are not unmistakable signs of diphtheria present, you will ascertain, in

the majority of the instances, a distinct history of a previous attack in the patient himself or some members of his family. In some instances the attack is so slight as to escape the observation of the patient or his friends. This may seem a strange remark, but it is nevertheless a fact. I have attended families ill of diphtheria, where one or more members were suffering from it in its malignancy, while the others had it so slightly as to cause no complaint from the patient, and the disease was only discovered upon inspection of the throat. I have often, too, been able to make my diagnosis in the case of a patient suffering from croup, when no membrane was visible, by examining the fauces of other members of the family, and there I have discovered sufficient evidence of the disease in the presence of diphtheritic patches.

Secondly. It is said that croup is a sporadic disease, while diphtheria prevails epidemically; and also that the latter is infectious, and the former not. This is certainly not a fair distinction, for the formation of a membrane in the larynx is but an occasional manifestation of the diphtheritic poison. If the membrane always formed in the larynx is diphtheria, then indeed the one would be as epidemic as the other. But, is not croup more prevalent during and after epidemics of diphtheria? How often do we witness a solitary case of malignant diphtheria occurring in the midst of a family of children, and all the rest escape? And how often have we seen two or three children in a family die, within a few days of each other, with all the symptoms of pseudo-membranous croup?—no fœtid breath, no enlargement of the glands of the neck, no asthenia.

Thirdly. It is observed, further, that in pseudo-membranous croup there are none of those after-symptoms called sequelæ, paralysis, and cutaneous complications for example, which we so often observe after diphtheria. Dr. Jacobi hits the nail on the head in reference to these when he says that "it was for the very simple reason that very few patients sick with croup lived until they could become paralytic," and "that he had seen the wound, after tracheotomy, in cases of supposed croup, covered within twenty-four hours with a diphtheritic exudation; and it was a fact well known that when blisters were applied in the treatment of croup the vesicated surface might become covered with a membranous exudation." (See *Monthly Abs. Med. Science.*)

Fourthly. There is one other so-called distinction to which I might refer, namely, the presence of micrococci in diphtheria and their absence in pseudo-membranous croup. I think, however, that future investigations will show that these microscopic objects are always to be found in the atmosphere. Indeed, Dr. Lewis Smith and others assert that they have observed them on the gums and between the teeth in healthy persons, as well as in all inflammatory exudations of the fauces. Such a distinction, therefore, cannot hold good in point of fact. Nevertheless, it does seem highly probable that future researches will demonstrate, if, indeed, the evidence already obtained be not conclusive, that the rapid increase and migration into the blood and tissues of the body, of bacteria, is the chief, if not the real, cause of the malignancy of diphtheria.

Those of you who are familiar with the history of the "trichinous disease" will not consider this an unreasonable hypothesis. You are aware that in this disease the parasites gaining access to the mucous membrane of the alimentary canal rapidly increase in number, and at once migrate into the muscles of the body, thus causing the most alarming symptoms, and in many cases death itself. But the whole subject of bacteria is still *sub judice.*

Hospital Reports.

A CLINICAL LECTURE DELIVERED AT THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA,

BY WILLIAM GOODELL, M. D.,

Prof. of Gynæcology in the University of Pennsylvania.

(*Concluded from page* 261.)

In this case we are having rather more hemorrhage than usual. The cancerous cachexia is well marked, but you will not always find it so. Remember, that a clear and even florid complexion is not an indication of the absence of cancer. As far as the operation is concerned, I think the cases in which the cachexia is most marked are the ones most favorable for operation: that is, I think the operation does them more good, and the reprieve from death is longer. The reason of this is that women with florid complexions have so much blood that the parts are succulent, the fungous mass very soft and hemorrhagic, and the disease sooner returns.

Having torn away all I can with my fingers, I inject pure vinegar, and now resort to the serrated curettes. With these the parts are thoroughly scraped, and with the gouge-forceps the vaginal portion of the cervix is removed. Next, with the platinum buttons of the thermo-cautery, I char the whole funnel-shaped wound.

From this operation I have lost but two cases, and I have operated on so many, probably over two hundred, that I have ceased to keep a record of them. At one time we had such a number of cases on hand in the hospital that it was not

easy to find the time to attend to them. One of the cases I lost died from tetanus, and it is the only time I ever had tetanus follow any uterine operation. The second death occurred last year. I had been asked to go about one hundred and fifty miles to perform the operation, but on the day before the appointed one I received a countermanding telegram. It appears that the lady had heard that "clover tea" was a specific for cancer, and wished to try it before resorting to an operation. To this her physicians had to assent, but of course she grew no better. In despair, however, she kept on taking it, until the day before the one on which my summer vacation began. She knew when I was to leave the city, but preferred to put off the operation as long as possible.

So I operated on her, in precisely the same way that I have just removed the diseased cervix, and I did not see her again. The operation was a bloody one, but the case seemed favorable. Unknown to me and to the resident physicians, she had secretly become addicted to opium, and had brought the drug with her concealed in the bottom of a large Saratoga trunk. The night after the operation she was discovered by her nurse to be out of bed, and to be fumbling for something in the bottom of her trunk. This imprudence caused a violent hemorrhage, but it was checked by the resident physician. She did, as she afterwards confessed, the same thing the next night, which caused a fatal hemorrhage. She could have had the opium for the asking, because I make it a rule never to withhold anodynes from the victims of so cruel and so painful a disease as cancer in its advanced stages; but she had made a secret of the habit.

What is the prognosis of our patient? Very bad in so far as a cure is concerned, but very good as regards a cessation of the hemorrhages, a lull from pain, and a reprieve from death. Her appetite will return, and in two weeks from to-day I shall bring her again before you, so that you may judge for yourselves how her complexion will have cleared up, and how improved she will be in every respect. The disease may, indeed, not return in the womb, but it will be pretty sure to invade adjacent structures.

To show you what this operation will do, let me relate a few cases. Three times I have operated, and the disease had not returned in five, six, and seven years after the operation. A few years ago my friend, Dr. W. R. Cruice, asked me to see a very sick woman who lived on the outskirts of the city. Being unadvised as to the nature of the disease, I did not bring my cancer instruments with me. She had a bleeding cancer of the cervix, and had been so greatly reduced by repeated hemorrhages that she looked as if she could live but a few days longer. The cancer was very large, partly excavating and partly vegetating, and the woman so weak that we hardly ventured to operate, and did not dare to give ether. After a hurried consultation, we decided to do our best for her. With my fingers and a sharp uterine curette, which I happened to have in my bag, I removed the cancerous growth. I was without nitric acid, and in its place painted the parts with an ethereal tincture of iodine. Dr. Cruice saw her in the streets some two and a half years afterward, with a market-basket on her arm. Some months later the disease attacked some vital organ, and she died of exhaustion, but without any recurrence of hemorrhage.

Some years ago, Dr. Joshua Evans called me to Branchtown to see a married woman of about forty. I found her bed-ridden and so exsanguined as apparently to be near her end. She was so completely exhausted and stupid that we had to bawl into her ears to rouse her up, as with a patient in the last stages of typhoid fever. The growth was of a vegetating character, very easy to remove, but the woman was too weak to be anæsthetized. Her rest was broken by the severe pains, and her strength wholly gone by repeated hemorrhages. Her complexion had become waxy, and her flesh so translucent-looking as to give the impression that by the aid of a strong light you could map out every viscus in her body. I snared the mass in the wire loop of the ecraseur, and removed it. Paquelin's cautery had not then been invented, so I resorted to nitric acid. An accident now occurred, which I shall never forget. I had an ordinary rubber cork in my bottle of nitric acid. During the jolting of the trip by rail and carriage, the acid attacked the cork and a gas was generated which exploded with violence on my opening the bottle. The contents were forced out as a small spray all over my face, hands, and clothing. I quickly plunged my face and hands into a basin of water, and was fortunate enough to escape with a slight conjunctivitis, which lasted for a few days, and with the loss of a suit of clothes. I now am careful to use a glass stopper, to carry the acid only when I need it, and before opening the bottle to cover the bottle with a wet rag. A rubber cork was used on this occasion because a glass stopper was liable to get loosened and let the acid out over the instruments and other contents of my satchel.

After this operation, and after a constitutional treatment of arsenic, corrosive sublimate, iron, and ergot, the patient improved wonderfully. Her color came back, her pains left, and her hemorrhages stopped. She continued so for nearly a year and a half, coming to my office every month to be assured that everything was right. Each time the womb was found movable, and there was no local recurrence. Later she began to suffer from sacral pains, and I found a hard nodular mass firmly attached to the sacrum. Nothing could be done for her but to allay her sufferings, and she died about two years after the operation.

I could tell you of other instances in which years elapsed without a return of the disease. Yet the disease is so cruel a one, and the prognosis so grave, that it always gives me a pang of pain to discover a cancer.

The operation is now ended, and as there is no hemorrhage, I shall not tampon the vagina. But supposing you operate in the country at a distance from home, and you wish to guard against hemorrhage, or to stop an oozing, what do you do? You take a sponge and pass a string through the centre and tie the two free ends together in a long loop. Do not tie your string around your sponge, for you will then deprive it of its elasticity and the power of expanding. Prepare three sponges in this way, and soak them in vinegar. Pack the first sponge very firmly into the funnel-shaped wound, and make one knot in its string. The

second sponge, with two knots in its string, will be pushed down to the cervix; and the third one, with three knots, will keep the other two in place. In twenty-four hours remove the sponge with three knots, and in forty-eight hours withdraw the sponge with two knots, and immediately afterwards the sponge with one knot. This last one must be removed carefully, and with a rotary motion.

I do not put sponges in my patient's vagina, because she is in a hospital, in which some physician is always on hand. But supposing at 3 o'clock this afternoon the nurse finds our patient bleeding, what instructions shall I give the resident? He will first inject vinegar, and if that does not stop the hemorrhages, he will then pack the womb and vagina with sponges in the way which I have just described.

The second patient, who is now brought in, is in a very bad condition. It was a bad case of advanced disease when she was first operated on, four or five months ago, and I told her husband so at the time. She was so much improved, however, that she has come back to have the operation repeated. On examination, I find the cancer has advanced to the vulva. The vagina is every where implicated, and, as I feared, but little can be done. I shall, however, scrape off some of these bleeding granulations. I dare not use much force, for I am afraid of getting into Douglass' pouch, or into the bladder, as I have on two occasions. I think the curetting will give her some relief from pain and stop her hemorrhages, at least for a time. When you find the disease in the vagina you may be sure that the end is not far off, for the disease will quickly spread by the veins and lymphatics. These patients sometimes die from venous thrombi and consequent embolism. I am sure this patient's sufferings must be very great, and I greatly pity her.

One word in regard to the treatment of cancer cases. Suppose you have operated on a cancer of the womb, and after a time the disease recurs, or perhaps you have not operated because the disease is too far advanced. Now you know that under the most favorable circumstances the woman will not live long, and it is your duty to make her few brief months on earth as comfortable as possible. Therefore, let her have opium enough to give relief, and do not fear that she will become a victim to the habit, for she will not live long enough. One of my patients took thirty-five grains of morphia daily for a week before she died. Without it her sufferings would have been intolerable.

What should the treatment be after an operation? The pain is very trifling. It is, indeed, astonishing that after an operation of such magnitude there should be so little suffering, and it is rare to have a marked rise of temperature. The pain complained of is in the vulva and not in the uterus. We shall give an opium suppository, and begin with the use of quinia at once, to prevent septicæmia. Blood-poisoning is, however, very rare after these operations, because the raw surfaces have been charred and seared with the hot iron, and by the time a purulent discharge begins granulations have formed which do not readily absorb. I expect both of these patients to be sitting up in a week.

While I am washing my hands, let me say a few words as to the danger of contracting disease from these cases. I have a cut on my finger at the present moment. I did not find it out till I made the examination, and acrid discharges got into it; but I do not fear cancer infection as such. If there were any possibility of the kind I would never operate. I might, however, get the wound poisoned by septic matter, not by cancerous matter as such. Once, while enucleating a fibroid of the womb, which had begun to break down, I got a wound that gave me considerable trouble; but my health was below par from a hard winter's work. So dissecting wounds are generally more mischievous at the end of the curriculum than at its beginning. The point, however, which I wish to impress on you is, that you need never fear that you run any risk of being inoculated by cancer germs, but only by the septic matter in those germs.

Medical Societies.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday evening, April 10, 1884. The President, Dr. Tyson, in the chair.

Rupture of the Heart.

Presented by Dr. T. D. Dunn.

Clinical History.—Wm. D., æt. 58, on the evening of November 3, 1883, invited his daughter to take a walk. While she put on her wraps, he reclined on a sofa. A few minutes afterward his wife heard a faint groan. She immediately went to his side, only in time to witness his last gasp. With the exception of occasional dyspepsia, he had enjoyed good health. He was a man of leisure, full habit, and apparently robust and strong. He had been a constant, though moderate, drinker for some time, but seldom carried it to complete intoxication. He had never complained of any heart trouble.

Autopsy, seventy hours after death. Owing to objections of friends, the brain was not examined. The muscular system was well developed, and there was a large quantity of subcutaneous fat. The lungs and pleura were healthy, with the exception of a few old pleuritic adhesions posteriorly. There was a large deposit of fat in the mediastinum and over the entire surface of the heart. The pericardium contained about one ounce of recently clotted blood. The heart was adherent to the pericardium by two small bands—one near the apex of left ventricle, the other midway between the apex and auriculo-ventricular groove. Externally on the left side of the left ventricle, below the auriculo-ventricular groove, there was a linear rupture about one inch in length. On opening the heart, no valvular disease could be detected, and there was no evidence of atheromatous disease of the large vessels. There was an ulcerated surface about the size of a silver dollar, irregular in outline, and communicating with the external linear opening. This ulceration extended through fully two-thirds of the heart muscle; the muscular tissue of the outer third seemed recently lacerated or separated.

The stomach and liver were normal. The left kidney was somewhat enlarged, the capsule slightly adherent, and cortical substance relatively increased. The right appeared healthy.

Microscopical examination revealed fatty infiltration of the fasciculi, but no degenerative changes of the muscular cells could be detected, nor was there any atheromatous change of the vessels of the heart.

The interesting feature of this case, in connection with those presented to this Society during the past year, is the suddenness of the attack, without any premonitory symptoms, resulting almost instantaneously in fatal syncope.

Diphtheritic Croup.

Presented by W. E. Hughes.

H. G., æt. four years, had been ailing for two days, slightly feverish, and complaining of sore throat, when he began to cough, and his parents noticed slight difficulty with respiration. A day after this, when I first saw him, there was moderate fever, much inspiratory dyspnœa, muffled cough, and whispering voice. The tonsils and pharynx were covered with patches of false membrane, and the cervical lymphatic glands enlarged. On the second day afterward, the dyspnœa became so threatening that I performed tracheotomy. His strength was at this time well preserved. After the operation his breathing became perfectly easy, the temperature fell almost to normal, and his general condition improved markedly. Twenty-four hours afterward, however, the temperature rose, the dyspnœa returned, and he died of apnœa fifty hours after the operation.

Autopsy thirty-six hours after death. Body well nourished. The tracheotomy incision had divided the isthmus of the thyroid gland and the second, third, and fourth tracheal cartilages. The edges of the wound were covered with false membrane. The cavity of the larynx was completely filled by a plug of firm white false membrane, closely adherent to the mucous membrane. In the upper part of the trachea was a thin layer of false membrane; below this the trachea was almost perfectly free, its surface reddened, thickened, and superficially ulcerated. In the right bronchial tube there was an enormous growth of membrane, completely filling the tube, and traceable some distance into its divisions. In the left bronchus was a smaller quantity of membrane not occluding completely its lumini. The left lung was somewhat congested, the right lung contained numerous patches of collapsed tissue, and was in other parts distended with *interlobular* emphysema. This emphysema was most marked at the free edges and surface of the lung, but was pretty generally distributed throughout its substance. There was no distention of the air cells, nor was there any emphysematous condition of the other lung, nor of the tissues of the anterior mediastinum or neck. The cervical lymphatic glands were enlarged and softened. At the bifurcation of the trachea was a mass of calcified glands. Other organs appeared normal.

There were cases of diphtheria in the neighborhood of the patient's residence, so that infection is easily accounted for. A rather curious fact in his family history is that three of his brothers and sisters have died of throat troubles, one of throat complications in scarlatina, another of croup, and a third of spasm of the glottis.

Diphtheritic Bronchitis—Croupous Pneumonia.

Presented by W. E. Hughes.

W. D., white, æt. 43 years, a salesman, was admitted to the University Hospital April 1. Of rather intemperate habits, he had been on a prolonged spree, and much exposed to weather, when three days before, he had been seized with a severe chill, followed by high fever, and, later, intense dyspnœa, with but little cough and no pain. When first seen, he was so weak as to be unable to give a satisfactory history, face and extremities congested, heart feeble and irregular, breathing rapid and labored. The breath was extremely fetid, but he complained of no throat symptoms, and there was no stridor. The cough was hacking, not very troublesome, and he expectorated small quantities of frothy, blood-stained serum. Physical examination showed flatness over the whole right lung, with imperfect bronchial breathing, best marked at the root; over the left lung some impairment of resonance, with large moist rales. He died in less than an hour of apnœa.

Autopsy (notes by Dr. Formad) *Fourteen Hours After Death.*—Pleura of right lung inflamed, plastic exudation, about one pint of serous effusion; left pleura normal. Right lung compressed by the effusion, and uniformly in the beginning of the second stage of croupous pneumonia. Left lung has a spot an inch in diameter in the upper part of the lower lobe, pretty far advanced in the second stage of pneumonia, elsewhere it is simply congested and œdematous. Pharynx acutely inflamed, with some spots of superficial ulceration and scattered deposits of false membrane. Tonsils ulcerated, the bottoms of the ulcers sloughy and covered with offensive false membranes. The same condition obtains in the larynx, its surface is softened, reddened, and dotted with false membrane and superficial ulcerations near the base of the epiglottis is a deep offensive ulceration one-half inch in diameter. Epiglottis œdematous. In the trachea the condition is more marked than in the larynx, about the middle of the trachea the patches of false membrane become continuous, and clothe the whole inner surface of the tubes growing thicker and more consistent as the bronchi are approached and traceable into the finest ramifications of the bronchioles in the larger tubes, tubular in thes mallest solid cylinders. The exudation is but loosely adherent to the mucous membrane, which is red, thickened, or raw. Lymphatic glands of the neck moderately enlarged, red, and softened. Liver, kidneys, and spleen congested, otherwise normal. Heart contains unusually firm white clots.

Carcinoma of Larynx.

Presented by W. E. Hughes.

T. C., æt. forty-nine years, had been complaining of some alteration of voice for six weeks. He was a man of rather dissolute habits, denied syphilitic infection, had never had his larynx injured, nor irritated by foreign substances or gases, and had a perfectly good family history. In addition to the change in his voice, which was at

first the most marked symptom, there was slight tickling cough. Soon after this the glands beneath the angle of the jaw enlarged, and he began to have fits of slight dyspnœa. His flesh and strength failed but slightly, and his appetite remained unimpaired, though a slight trouble with deglutition prevented his eating as much as he would have liked. When first seen, the glands of his neck were enormously enlarged, but painless and still movable. His voice was husky or cracked, sometimes whispering or lost, his breathing difficult and noisy. Alternating with this constant difficulty of breathing were fits of dyspnœa, brought on by no appreciable cause, often so intense as to threaten life. Two days later he died in one of these attacks of dyspnœa, before aid could be rendered. For the foregoing facts I am indebted to the kindness of Dr. George J. Preston.

Autopsy nine hours after death. Body well nourished. Cervical lymphatic glands enormously enlarged, rather firm, no signs of degeneration. Bronchial glands slightly enlarged. In the cavity of the larynx, above the vocal cords, not involving them, but involving the ventricular bands, and extending from them to the top of the larynx, was a firm, pinkish, nodular growth, involving the right side most. The epiglottis was so involved in this growth as to have no vestiges remaining of its original shape. The mucous membrane was intact. The growth had left only a narrow slit for the entrance of air, which could be easily completely closed by pressing down the deformed epiglottis. The pharynx and œsophagus were not involved. The cartilages of the larynx were completely ossified, and around the superior cornu a small abscess had formed, resulting apparently from a necrotic process in the ossified cornu. The trachea and bronchi were normal, the lungs congested. There was a slight increase in the fibrous tissue of the liver and in the substance of the right lobe was a small cheesy nodule. The kidneys were granular, the microscopic examination of the growth was found to be made up of large, irregular cells, separated into masses, in which was no intercellular substance, by a scanty stroma of connective tissue. Scattered through the growth were masses of fibro-cartilage not connected with cartilage of the larynx. The mucous membrane was proliferated, and in places prolonged into the subjacent connective tissue, but nowhere did it take part in the new growth. The epithelium lining the glands was much proliferated, and seemed to have been the starting point of the morbid process. The enlarged lymphatic glands were infiltrated with a growth similar to that in the larynx.

PHILADELPHIA CLINICAL SOCIETY.

Stated meeting, April 25, 1884. The President, Dr. Henry Beates, jr., in the chair.

Dr. Hannah T. Croasdale reports a case of

Vesico-vaginal Fistula with Inverted Bladder.

The record which is brought to your notice this evening is that of a case which, perhaps, is possessed of more than ordinary interest from two circumstances: first, from the enormous size of the opening in the septum; and secondly, from the fact that from the orifice a bright round body protruded, which was discovered to be the bladder inverted. The patient, M. F., æt. 47, was admitted to the Woman's Hospital, October 11, 1881. She was married at the age of twenty-five, and had one child stillborn. The labor was instrumental, and incontinence of urine occurred soon after it, thirty years ago.

For this trouble and great discomfort the woman never sought relief, and speaks only of her present suffering having begun one year before admission. This suffering had been so intense that she had been obliged to keep her bed for that length of time. The journey from her home had been made on a bed. Her appearance was deplorable. She had constant pain in the lower part of the abdomen; bowels were constipated, appetite poor, face anxious, and she was constantly distressed lest the bed or her clothing be moved, and thereby her sufferings be increased. It seemed almost hopeless to expect to do anything for the poor woman's relief, so disturbed was her health from her desperate condition.

Nausea and vomiting were almost constantly present. Her pulse on the day following that of her admission was 65, temperature 99°, and respiration 26. The quantity of urine in twenty-four hours could not be ascertained. The color was pale yellow; specific gravity, 1002; reaction alkaline, and there was a trace of albumen. After ineffectual attempts, she was finally etherized and thoroughly examined October 29.

The tumor which was so exquisitely sensitive was the inverted bladder, and the exposed mucous membrane was greatly inflamed and bled readily on being touched. The openings into both ureters could be distinctly seen. The mass was grasped, and by gentle taxis was reduced and retained by the slight support afforded by one of Skene's glass stylets, made to pass through the urethra with the distal extremity resting upon the upper edge of the fistulous opening. A vaginal glass plug was introduced into the vagina to aid in supporting the bladder. The inflamed condition of the parts forbade any further procedure at this time.

On the 30th of November she was again etherized and placed in the lithotomy position, and the edge of the fistula, which was about five centimetres in diameter, was carefully pared, beveled from the vesical margin, giving a broad surface on the vaginal septum, and twelve sutures of silver were introduced. It was necessary, before closing the fistula, to liberate adhesive bands at either angle, and then the margins of the opening were closed by the sutures and secured by perforated shot. A self-retaining catheter was introduced to which was attached a piece of rubber tubing for conveying the urine to the urinal. The patient was then placed in a bed and $\frac{1}{4}$ gr. morph. sulph. given hypodermically, and was ordered lime-water and milk every two hours.

The following day, December 2, there was much vesical tenesmus, which gradually subsided, and nothing especially worthy of note occurred until December 7, when the sutures were removed. Union was not perfect at either angle, and in the centre there was a small orifice, which admitted the passage of urine.

January 6, the patient was again etherized; the edges of the three minute openings freshened, and

fine silver wire suture introduced. The central and right openings promptly closed after this second operation, but the left, just at the site of the ureter, admitted the passage of a Snelling's probe.

Then, January 20, February 3, and March 28, I operated, hoping to close this minute orifice which still remained, and which still allowed of the passage of urine when the bladder was filled. Not one of these efforts was followed by any better success. These attempts were always made with a probe carried through the urethra into the opening in the ureter, in order to prevent wounding or closing the latter.

It was now thought best to send the patient home and encourage her coming again in the autumn, as her stay had already been much prolonged beyond the usual time for keeping patients in the hospital, and she was discharged May 8, 1882, quite content on her part with the result of the many operations—six in all. After several months, however, the urine ceased to pass through this opening, probably from the contraction of cicatricial tissue.

I find many contributions to the surgical literature for the relief of vesico-vaginal fistula, but nowhere have I found any record of a case of inverted bladder through the fistulous orifice.

G. Betton Massey,
1502 *Arch St.* Rept. Secretary.

Editorial Department.

Periscope.

Intermittent Pulse.

The *Med. Press*, July 30, 1884, says:

The phenomenon of intermittency in the pulse-beat is one of such frequent observation that every practitioner is familiar with it, and places on its occurrence a signification which varies within the widest limits. By some it is regarded as a very trivial sign, demanding a merely passing attention; while others, again, attribute to it an importance which it cannot justly claim—the fault usually committed being that of omitting to consider all the circumstances tending to favor its production, and influencing the effects to which it may possibly give rise. The reason why such discrepancies of opinion are noticeable in this connection probably lies in the fact that clinical teachers, during bedside demonstrations, vary much in their descriptions of the phenomenon; for in our own experience we have heard exceedingly inconsistent accounts of what it portends, from different physicians who have been lecturing to students on cases in which an intermittent pulse has been discovered. That this should be so is a misfortune, since any confusion as to principles arising in the minds of those engaged in qualifying themselves for the practice of medicine, only too surely perpetuates itself in their after professional life, leading, it is to be feared, to frequent errors in diagnosis and treatment, which can only be avoided by the possession of accurate and definite knowledge, gained during the pupillary period.

In the presence, therefore, of so great a disagreement respecting the meaning of intermittent pulse, useful service is done by the publication of an essay on the subject by Dr. B. W. Richardson, in the current number of the *Asclepiad*, and which is written in a clear, precise, and definite style that will at once commend it to the doubting practitioner. In this paper, Dr. Richardson arrives at the conclusion that intermittency of the pulse is a more common symptom than it formerly was, and that the explanation is to be found in the increased emotional strain and excitement incident to our present mode of living, the affection being due to "nervous exhaustion of the vital nervous system." The detailed causation of the phenomenon, as demonstrated in an exhaustive essay which appeared from his pen in 1868, Dr. Richardson has briefly recapitulated in this later article. He continues: "In itself, when not present in an exaggerated degree, intermittency of the pulse is often less dangerous than it seems. It does not, as might be feared, carry with it the necessary idea of sudden dissolution from heart disease, for, as I have elsewhere shown, the heart is the regulator, not the prime mover, of the circulation. The harmlessness of the symptom in its moderate development is shown by the fact of its common occurrence after middle age, and by the long duration of life in many of those who present it. At the same time the symptom has its significance. Occurring in infancy, it is an important indication of serious nervous derangement. Occurring in young adults, it has the same meaning, and tells the story of commencing failure of power. Occurring suddenly after any great event, which has told upon the mind, it may be a sign of very serious import." By far the greater number of persons whose pulse exhibits intermittency are unaware of the fact, and only in cases where the intermittent period extends over as many as five normal heart-beats, or recurs often in a minute, is consciousness of its occurrence produced, and such cases proceed along a certain course to death when the symptom is persistently present. A most important point, on which Dr. Richardson insists most impressively, and which has a direct practical bearing, is that persons with intermittent pulse offer less resistance to disease, owing to the impairment of nervous energy, of which the pulse-change is characteristic; and also they possess diminished power of recovering from surgical operations, as compared with individuals of normal circulation, and for the same reason, as our author tersely puts it. The phenomenon has its general meaning, both for the physician and the surgeon. It has also its particular meaning, since it may be raised into fatal consequence by disorders which need not, in its absence, prove fatal.

Intermittent pulse in children may pass away, but it is never got rid of when appearing for the first time at or past middle age, although it is not incompatible with the attainment of even extreme old age. One of Dr. Richardson's patients, who died at 86 years of age, was discovered to have this character of pulse when only 42. The symptom may be inherited; a case is quoted of an infant in whom it was distinguished an hour after birth; and now, twenty-five years after, the intermittency always appears under great strain or during depression.

On the subject of treatment in these cases, Dr. Richardson lays down a great number of valuable rules, which will be found of sound value by those who will be at the trouble of studying them. In children especially is it essential to avoid all undue intellectual and emotional strain, and to encourage the taking of a plentiful amount of sleep. In adults, too, equal attention should be paid to removing impressions derived from untoward events, and to regulating diet and promoting repose. The "points of practice" dwelt upon in the paper are indeed exceptionally interesting and suggestive; and taken altogether it is a very valuable contribution on an ill-understood question of medicine.

A Case of Fracture of the Pelvis.

Dr. Edward S. Dwight thus writes in the *Med. Record*, March 22, 1884:

I was called on September 12, 1883, to treat a young German fresco-painter, nineteen years of age, who, while working in a store in this city, had fallen from a scaffolding for a distance of about fifteen feet, the back part of his right hip striking diagonally against a projecting shelf a little above the floor, and the ilium of that side being fractured from a point a little to the outer side of the upper extremity of the sacro-iliac symphysis, downward and outward into the great sacro-sciatic notch.

The patient was unable to stand alone; there was marked crepitation along the line of fracture; efforts to rise caused a sensation of *falling in pieces*, and the thigh could not be flexed to an angle of less than 120° without great pain over the line of injury, and also over the tuberosity of the ischium. Severe pain was also felt in the groin. There was, however, no ecchymosis.

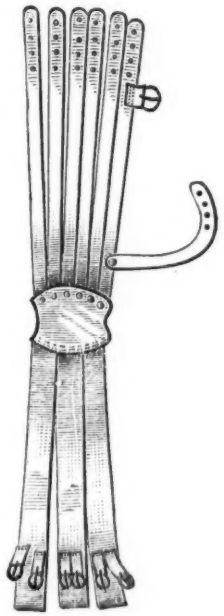
The treatment adopted was as follows: A roller bandage was first applied around the pelvis, and was replaced on the following day by a thick plaster-dressing, enclosing both the pelvis and the upper half of the right thigh. The latter was slightly flexed, the front and outer side of the hip-joint being reinforced by moulded plaster splints. To prevent traction upon the ilium by the dorsal and lateral muscles of the trunk, I also added a few turns of roller bandage, which were carried over the right shoulder and under the perineum. These were tightly drawn, so as to depress the shoulder as much as possible, and were kept from slipping by means of a transverse band sewn to them in front and behind, and passing around the left side of the chest. This contrivance diminished, to a great extent, the throbbings in the injured part, which, together with numbness and tingling along the course of the great sciatic nerve, had been experienced, particularly at night.

At the end of six days, the plaster bandage having become very much loosened by the subsidence of the swelling, it was replaced by another and tighter. This was applied over a layer of wadding and inclosed the pelvis only, the thigh being slung at an angle of 140° by a series of turns of roller which passed around, and were sewn to, the upper rim of this plaster-dressing, and which crossed each other above the thigh, where they were also sewn *together*, as well as to the plaster.

The rim of this second plaster bandage being very thick and firm, prevented upward muscular traction; and the whole apparatus being constantly pulled downward and forward by the weight of the limb, was in consequence kept closely applied against the seat of injury.

Two weeks after the accident, I slung the thigh from the neck also, carrying too a loop of strong cord from the bottom of the sling down below the instep, and allowed the patient to get out of bed and walk into the next room, which, with the aid of a crutch, he was able to do without pain.

Three weeks later this dressing was also removed, and replaced by the following apparatus in leather.



(This represents the back of the apparatus: The central pad rests on the sacrum; the six straps (right side) are all freely movable at their insertion, and are thus susceptible of being placed at any angle, so as to adapt themselves to the outline of the hip; the upper two are applied high up, so as to exert downward pressure upon the crest of the ilium; the next two pass over the great trochanter; and the two lower ones are applied low down, so as to exert upward action upon

the tuberosity of the ischium. The three broad straps upon the left side are firmly sewn to the sacral pad, so as to afford efficient counter-pressure. The strap hanging from the lowest, on the right side, passes under the perineum, and is intended to aid in keeping the whole in place. A broad band of canton flannel was applied around the body before the belt was put on.

The patient was now allowed, after a day or two, to walk about the rooms without a crutch, which he was able to do without pain, the belt acting as a moulded splint, and its lower straps preventing him from unduly raising his thigh. As the belt had a tendency to work upward, another perineal strap, upon the left side, was added with advantage.

Eight weeks after the accident, the patient was able to go out of doors, and could flex his thigh to an angle of 85° without pain. Rheumatic tenderness and twinging pains, at changes of the weather, persisted up to the end of October.

The upper part of the fracture consolidated first. There was no effusion of callus perceptible to the touch, but the iliac border of the sacro-iliac symphysis seems much more prominent upon the injured than upon the opposite side.

A Case of Absence of the Lower End of the Rectum, with Passage of Fæces Through the Penis; Successful Operation for Relief.

Some time since we noted a case like this, which Dr. Wm. Craig reported in the *Edinburgh Medical Journal*. In the same journal for August, 1884, Dr. Francis J. Shepherd writes as follows:

"As Dr. Craig states in his paper that he is not aware of any similar case to his own having occurred, and Mr. Holmes, when speaking of cases where the rectum communicates with the urinary tract, mentions that he knows of no case where the bowel has been reached successfully through a perineal incision, I thought that it might be of interest to place on record a case similar to Dr. Craig's, where operative procedures had resulted favorably. On the 16th of November, 1883, Dr. Molson delivered a woman of a healthy male child after a tedious labor. Next day the mother told him she noticed something strange coming from the child's penis. On examining the parts Dr. Molson immediately recognized the discharge as meconium, and, on further examination, discovered the infant had an imperforate anus. The mother having consented to an operation, Dr. Molson requested me to take charge of the case. The patient was admitted into my wards at the General Hospital on 19th of November, being then three days old, and having since birth passed a large quantity of feculent matter by the penis. The child, which was strong and healthy, had some distension and tenderness of the abdomen, but very slight fulness of the perineum. There was a well-marked median raphé, and a slight puckered depression at the site of the anus. I decided first to try and reach the bowel through the perineum. After placing the child under chloroform, I made a free incision in the median line, dissecting carefully backwards and upwards in the direction of the rectum, and frequently placing my finger in the wound to feel for fulness or fluctuation. I dissected in this way to a depth of fully two inches, when discovering a fluctuating tumor, I punctured it with my knife, and was pleased to see quantities of fæces escaping through the wound. I then enlarged the puncture in the bowel, and without much difficulty drew it down to the external wound, and held it there by catgut stitches.

"Almost immediately after the operation the mother removed the child from the hospital, and I did not see it again till 9th of June, 1884. In the meantime Dr. Molson had occasionally visited the case, and instructed the mother, in passing bougies, to keep the anus open. The mother, however, did not attend very scrupulously to directions, and after the operation the opening kept gradually growing smaller. When I saw the child last, it was six months old, and was stout and healthy; the opening had contracted so much that it with difficulty admitted a No. 12 catheter. The mother informed me that the child still occasionally passed fæces by the penis, but only when 'opening medicine' was given. I intend, when I can get the mother's consent, to incise the opening, and I shall insist on her passing her little finger twice daily through the anus, as Dr. Holmes recommends.

"I forgot to mention that the child was the subject of another deformity, viz., absence of the metacarpal bone, and probably the trapezium of the right thumb. It was the mother's fifth confinement; all the other children were born perfect.

"In this case it is highly probable that the rectum opened directly into the membranous portion of the urethra, as, if the connection was with the bladder, it is not probable that the bowel would have been reached by a perineal incision.

"Dr. Craig remarks in his paper that examining the preparation of his case, it is evident that it was possible to pierce the bowel with a trocar, or even a bistoury, but he says, 'to have enlarged the opening sufficiently to have cut down upon the rectum would have been an operation such as few newly-born children could have survived, and even if the child could have survived, the want of development of the rectum would have prevented a successful issue in this case.'

"I cannot agree with Dr. Craig's conclusions, for if the bowel is not reached the child will certainly die, and I do not think fear of the severity of the operation should influence the surgeon in his endeavor to reach the bowel: again, as the rectum is pretty movable in the infant, it can be brought down, as is shown in my case, even if the lower end is undeveloped."

And Dr. D. Duncan Main says, "Two months ago I had a case of imperforate anus. I cut in one and a half inches without finding the bowel. Being afraid to go any further, I dismissed the patient. The following day they came and told me that the child had had an action of the bowels. Of course, I did not believe them, and on making inquiries I found that the child had passed yellow and dark material through the urethra. The child died on the fourth day after operation. I am inclined to think that this was a case similar to Dr. Craig's."

The Physiological Effects of Kairine.

The *Medical News*, August 16, 1884, tells us that M. Morohovetz, of the University of Moscow, has

recently made quite extensive experiments as to the physiological effects of kairine, and publishes (*Medicinsk. Obosrenie*, No. 9, 1884), the following results:

The physiological action of kairine is not simply confined to lowering the temperature. The changes which gr. $\frac{1}{15}$ of kairine will cause in the blood are enormous. In his experiments, Morohovetz used kairine dissolved in a six per cent. solution of common salt, so as to avoid the action of distilled water on the red globules. The blood remained alkaline, but its color changed as soon as a more concentrated solution was used. A continuous current of air deprived of carbonic acid did not restore the red color of the arterial blood. The blood-spectrum was also changed by the concentration of the kairine, and contained four methæmoglobine lines, situated between the C and F lines.

Under the influence of kairine, the blood-globules formed roulettes, at the same time that the middle part protruded from one side to the other. The number of globules does not diminish. The blood of a dog which has taken kairine coagulates almost immediately after it comes out of the vessels. Under the influence of kairine, the red globules of the blood, while preserving their quantitative proportion, undergo a quantitative and qualitative change in regard to the coloring matter; the hæmoglobine is transformed into methæmoglobine, which is precipitated. The change in the color of the blood of a living animal by cyanosis gives a peculiar leaden appearance. The same thing was noticed by Golouboff after the administration of gr. xj of kairine.

The glandular organs are also influenced by kairine. The saliva and bile flow more abundantly after kairine is injected into the blood, or introduced into the duodenum. The bile is viscid and almost black. The pancreas and the kidneys are not influenced by kairine. It is eliminated by the kidneys, as shown by the action of fuming nitric acid on the urine, a bright reddish ring forms between the acid and urine—a ring which is characteristic of kairine in an aqueous solution. When bile is normally excreted, this ring takes the spectrum colors, and the urine gives the greenish color-reaction of biliverdine.

The modifications of respiration and circulation are more rapid and pronounced as the quantity of kairine is increased. The direct injection of it into the blood causes an intense dyspnœa, accompanied by an elevation of arterial pressure in the carotid; this being followed by a diminished pressure, shortening of the pulse-waves, and filiform pulse. After the ingestion of gr. xxv, the heart of the animal was arrested, and it died of cardiac paralysis, the respiration continuing for some time, and being of a Cheyne-Stokes character. At the autopsy, the cavities of the heart were found dilated and filled with blood. The classic experiment on the frog (ligature of a limb), showed that kairine acted similarly to curare on the peripheral ends of the motor nerves.

In experiments on dogs, Morohovetz found no notable abatement of temperature. The experiments of Filehne have shown that, to obtain a notable abatement of temperature, it is necessary to inject kairine continually; less than gr. iv. produces no effect. But it is easy to exceed the required amount, and to throw the patient into such a state that his inspired oxygen is insufficient for his physiological necessities, as kairine deprives the hæmoglobine of a large quantity of its oxygen. Morohovetz terminates his paper by counselling great prudence in the administration of kairine; he considers pulmonary and cardiac affections, and anæmia as absolute contra-indications to the administration of kairine.—*L' Union Méd.*, July 10, 1884.

Hydriodic Acid in the Treatment of Acute Inflammatory Rheumatism.

Dr. James Craig, of Jersey City, N. J., writes as follows to the *Med. Record*:

"Before using the remedy shortly to be spoken of, I was in the habit of prescribing bicarbonate of potassa, which, as a rule, gave relief as soon as the urine was rendered alkaline, which required about a week or ten days, and during that time opiates had to be given to relieve pain and produce sleep. I have also prescribed salicylic acid, but cannot say that I have seen any decided benefit derived from its use.[!] Syrup of hydriodic acid, prepared by Robert W. Gardner, New York, is the remedy *par excellence* for this painful and troublesome affection. I have used it for the past two and a half years in bronchitis and scrofula, but its effects have been most prompt in acute inflammatory rheumatism, relieving pain in from twelve to forty-eight hours. I have been called to see patients suffering from this affection, and found them with high fever, joints swollen, and suffering terribly, and on the following day have been agreeably surprised at their rapid improvement, finding them in a great measure free from pain, and fever reduced. Some other cases take a longer time, but I have yet to find one that was not in a comfortable condition within forty-eight hours. The dose I prescribe for adults is from two to three teaspoonfuls every two or three hours, in a wineglass of water, until relieved; afterward I reduce the dose to one teaspoonful, which may be continued for five or six days, at longer intervals. I was first led to the use of this remedy in prescribing for a patient suffering from bronchitis complicated with rheumatism, its effects being most salutary in the relief of both diseases. I should state that under this mode of treatment the heart has been free from complications—the remedy preventing the exudation and organization of plastic material. I more frequently use it now in rheumatism than in bronchitis—in fact, I use it in all cases of acute rheumatism, and must say have always been pleased with its results. I have also prescribed it in chronic rheumatism, but with less effect. I hope that other physicians will give it a fair trial, and find it as useful in their hands as it has been in mine."

—The *Med. Record* tells us that Professors Virchow and Pettenkofer are busily arguing with each other upon the subject of cholera. The gist of their differences lies in this: Virchow is a contagionist, Pettenkofer is a localist. That is to say, the latter believes that no specific germ can produce cholera unless there is a specific local condition to favor it.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Some further studies of the phenomena of swallowing are given by Dr. S. J. Meltzer in a reprint before us. He takes up for examination the sounds made in the performance of the act, and inquires into their physiological signification. They have positive value as diagnostic signs in a number of diseases.

—— The second annual report of the State Board of Health of South Carolina makes a pamphlet of eighteen pages full of useful suggestions for the public and the authorities, and will, we trust, meet with the attention it certainly deserves.

——The subject of the calcification and decalcification of the teeth is treated of in a paper read before the State Dental Society by Dr. C. N. Peirce. It contains a series of new observations, and is illustrated by diagrams. Reprint from the *Dental Cosmos*.

——The Public Health Laws of Illinois have been issued as a separate pamphlet of fifty pages. It is an excellent summary of what is needed in this direction.

——"Sunshine" is the title of a very handsome illustrated work in large quarto for children, sold for 76 cents, and postage, by Wyckoff, Seamans & Benedict, 715 Chestnut street, Philadelphia. They put it at this reduced figure as a means of recommending the Remington type writer. It is a charming work for the little ones, containing plenty of stories and pictures.

BOOK NOTICES.

Malaria and Malarial Diseases. By George M. Sternberg, M. D., surgeon U. S. A., New York. Wm. Wood & Co., 1884.

This volume, one of Wood's Library of Standard Medical Authors, is a reasonably full monograph of the subject. The author very properly confines the class of malarial diseases to those which are produced by a special poison, their pathognomonic symptom being periodicity. The wider use of the term, to embrace all diseases arising from poisons in the atmosphere, is unjustifiable.

He divides his subject into two parts—malaria and malarial diseases. Under the first heading he discusses the evolution and nature of malaria, its general effects on the system, its antidotes, the means of prophylaxis, and the relation of geographical position. Under malarial diseases he includes only malarial intermittent fever, continued malarial fever, and hemorrhagic malarial fever.

The preparation of the work indicates some haste, the scissors having been used pretty freely (not without due acknowledgement), and the material is not as well digested as it should have been. Still, it is a good book.

Materia Medica and Therapeutics. By J. Mitchell Bruce, M. D., London Sur. 8vo., pp. 545. Philadelphia, H. C. Lea's Son & Co.

This is one of the English series of "Manuals for Medical Students" which are republished in this country by the firm above named. They are the most satisfactory "students' manuals" we have yet seen, and come as near being what they should be—brief, but not superficial; clear, but not trivial—as it is likely such works can be produced.

The present is quite as good as the preceding volumes, and is an excellent resumé of the subject, quite as desirable for the busy physician who would like to refresh his memory as for the student who would post himself for his examination.

The Medical Graduate and His Needs. By Geo. C. Wellner, M. D., Detroit. Geo. S. Davis.

This little volume of 100 12mo. pages gives the young doctor a variety of hints on his outfit, behavior, diagnosis, prognosis, clinical inquiry, hospital practice, etc. We find a good deal in it which is worth reading—a good deal that is trivial also. We will give the author himself a hint. There are other medical schools in the United States than those in New York city, even post-graduate medical schools, with first-rate hospital facilities. It is evident that this will be news to him, so we mention it.

A Compend of Organic and Medical Chemistry, Including Urinary Analysis and the Examination of Water Food. By Henry Leffmann, M. D., etc., Philadelphia. P. Blakiston Son & Co., 1884. Price, $1.00.

This volume is No. 10 of the "Quiz Compends" issued by the publishers. The difficult subject of organic chemistry is treated in a very successful manner by the author; that is, what he tells about it, he does in an unusually lucid manner, and he probably tells enough to carry the student through his examination *cum honore*. Chemistry is generally hated by medical students, and they learn as little of it as they can. This volume will give them that little, at the cost of as small a degree of mental exertion as they can expect.

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THE ASIATIC CHOLERA—AN INTERPELLATION IN THE GERMAN PARLIAMENT.

After a member of the German Parliament had interpellated the government concerning the possible danger of an invasion of the German empire by the Asiatic cholera, Mr. von Bötticher, Secretary of the Interior, replied to the interpellation June 28th, of this year. The stenographic report, as published by the *Deutsche Med. Zeit.*, No. 55, July 10, is before us; and as the debate which ensued contains some facts of importance and some news, which have not yet appeared in print, we have made in the following a short extract of the minutes for the benefit of our readers.

The secretary first expressed his thanks to the interpellator for having thus given him an opportunity to exert a quieting influence on the whole nation. He then mentioned that the government, immediately on receipt of the news of the outbreak of cholera, at once took steps to obtain authentic information regarding the character of the disease in Toulon, and to consider the measures necessary to prevent an eventual invasion of the empire by the epidemic disease. While the physicians in Toulon had expressed themselves to the effect that the malady raging in Toulon was really the Asiatic cholera, the French government did not seem to be convinced of it, but believed it to be a sporadic complaint, which would probably be of short duration and not spread extensively. This being the present state of affairs, the Minister considered it his duty to watch cautiously the progress of the disease, and meanwhile not to neglect the study of the question, how the epidemic, should it spread, might be prevented from invading Germany, and how, should it enter, its ravages might be limited to the original places of invasion. He then continued, that, thanks to the researches of the German Cholera Commission, and thanks to the results achieved by the same, these questions could be debated far more intelligently, and would produce more certain and reliable measures than had ever previously been possible.

That same morning a commission appointed by the Chancellor had met for the very purpose of

considering these questions, and as such men as Dr. Koch and Dr. von Pettenkofer were members of the commission, the most important results might be expected from its deliberations. While these were not yet concluded, the Minister, who was present at the meeting, could inform Parliament, and through it the German nation, that it had been decided, by no means to draw a cordon around the Empire, for past experience had proven that such a measure had never achieved its purpose, viz., that of preventing the spread of the disease.

At the request of Dr. Koch, in Egypt as well as in India, a cordon had been drawn around the infected districts; but though the measure had been executed as strictly as possible anywhere, it had not met with any fortunate result, the epidemic disease having spread just the same. The Minister, therefore, could assure Parliament that even in case of the spreading of the Asiatic cholera, the common intercourse with a friendly nation, in whose land the disease was ravaging, would by no means be interfered with, and under no circumstances would a cordon be drawn around the Empire.

But there were other measures, attended with far better results, which could be taken and which would surely achieve their purpose. While the Minister was not at liberty to foretell the result of the deliberations of the commission, he might refer to a passage in the report of Dr. Koch, who, probably at present the highest authority on the subject, says:

"I am convinced that, based upon the result which the cholera expedition sent out by the Empire has obtained, measures can be taken which will effectually prevent in future the spreading of the disease in the interior of the country."

"More, gentlemen," concluded the Minister, "we cannot expect. May, by the Lord's will, such measures not become necessary." (Bravo, from all sides of the house.)

Member of Parliament Dr. Virchow then spoke. He drew the attention of the Government to the fact that they had to look first to France for such measures as are needed to prevent the spread of the cholera. "Any civilized nation, in whose country an epidemic disease decimated mankind, owes it to the world to do all in its power to call a halt to the spreading of the contagion. And in this respect nothing is worse than for a government like that of France to imagine that the disease might *not* be the Asiatic cholera, and thus to allow most valuable time to roll by without taking energetic measures. In a case of doubt, it is always better to suppose the worst and to act accordingly; for measures which shall prevent the spread of an epidemic disease never do harm, but have the most salutary influence on the health of the population of any country.

"A transport ship arrives from India, then the seat of the cholera, and anchors in the port of Toulon, where its crew and the transport are put ashore. Shortly after, cases of cholera happen in Toulon, and still to have doubt of their being anything but genuine cholera, is a little strong. In this manner sporadic cases of the disease never happened. And least should such a thought occur in Toulon, which for centuries is notorious as the place of import of all oriental epidemics—a true pest-place. The French Government should have rather at once taken it for granted that they had to do with true Asiatic cholera.

"But there is another place where a stricter quarantine should be observed, a place where alone the importation into Europe of all Asiatic epidemics could be prevented: I mean at the Suez canal. Let me remind you of the English ship 'Crocodile.' On its passage from India to the Suez canal six cases of Asiatic cholera had happened and ended fatally. Notwithstanding this fact, a clear bill of health was given to the 'Crocodile' in Suez. The ship left, and between Suez and Port Said another fatal case occurred on board of her. Still in Port Said again the same certificate of health was granted to her, and she was permitted to proceed to Malta. On this trip nine new cases happened, but nevertheless the ship met with the same criminal negligence, and was allowed to depart for England. That the disease was then not imported into England is one of those fortunate occurrences that seem to protect mankind.

"All civilized governments should unite to force and control such a quarantine at Suez, that such cases as that of the 'Crocodile' can never again occur. Whether the same happened with the French transport ship we cannot tell, as information on this point is still wanting. But we know that the ship came from India, where it had left at the time of a cholera outbreak there; she passed through the canal, was permitted to proceed unmolested, and came to Toulon, where a few days later the first cases of cholera occurred. What I say are facts well authenticated, and the Minister as well as you, gentlemen, may draw your own conclusions from them, and they will tell you what, *ab initio*, the duty of the French Government ought to have been.

"It is no use denying—the sanitary control, as performed by the French Government, is not so strict as civilized nations have a right to demand. I hope to notice soon an improvement, and especially at Suez; otherwise the sanitary measures of other nations are useless.

"It has long been supposed that the Asiatic cholera could not exist so long a time on board a ship. The instance of the 'Crocodile' has now confirmed older cases. Let me mention to you that of the German iron steamer, 'Franklin.' October 10, 1871, it left Stettin, and had, October 14, the last communication with the shore at Christiania. Nevertheless, from November 1 to 13, thirty of the crew died of the cholera. The last case happened November 13, four weeks, therefore, after the 'Franklin' touched land the last time.

"In conclusion, I can only say that I am astonished that our government had not yet sent a commission to Toulon to investigate the disease. The French sent a commission to us to study the trichinæ; they were well received by us; why should we not do the same? Sporadic cases of cholera happen, but the disease since Koch's discovery of the cholera bacillus is now so easily recognized—though without it not less—that there should be no trouble in determining the true character of the epidemic. I myself am against a cordon, as useless."

Virchow ended by declaring that he had the fullest confidence in the wisdom of the government; and then the Minister concluded the debate by insisting that the French Government had taken the strictest measures to prevent the disease from spreading. He mentioned in detail the report of the German Ambassador in Paris, in which it is said that especially disinfection, cleaning, and isolation were strictly attended to, that the troops had been transferred to another city, and that all persons leaving Toulon were under medical control. With reference to the sanitary service in Egypt, the Minister informed the House that the German Government was endeavoring to have all civilized nations act in unison, so as to enforce the strictest quarantine upon all suspicious vessels.

The Minister in closing the debate also made mention of the fact that a German commission would depart for Toulon. We know that such has been done; also, that the French Government has admitted the disease to be genuine Asiatic cholera, and that the latter has spread considerably, though it has not yet found a victim outside France and Italy.

THE PRACTICE OF MEDICINE IN TURKEY.

In 1870 a high Turkish officer, Stephan-Pasha, wishing to reorganize the army medical service in Turkey, induced a number of physicians from Vienna to enter that service. The pay was modest, but large promises were held out for the future. Many young men, attracted by the romance of a voyage in Eastern lands and by the high-sounding promises held out, decided on taking the voyage.

Very few of these medical men who went thither in 1870 are present in the Turkish army: "constant privations at a social and scientific point of view," says M. Fenykövy, "with constant cabals and intrigues, are what we met with."

The foreign physician has under his orders a native druggist and surgeon; the druggist is exceedingly ignorant, barely knowing enough French to read a prescription; those who know how to

prepare pills or Sydenham white decoction are considered models of skill. These native subaltern medical officers are united in their hatred of the physician; they neglect or mal-interpret his orders on all possible occasions, in order to do him the most injury possible.

Formerly there existed at Constantinople a military school of medicine, directed by foreign professors, where the lectures were delivered in French. The results were excellent; each year a number of medical officers, of great intelligence, were graduated, and the most able were despatched to complete their education at Vienna or Paris, their expenses being paid by the government. During the past few years all has been changed, the French language has been replaced by the Turkish, and as there exists no medical literature in that language, a few text-books have been hastily translated.

As a consequence, the young medical men sent to the army at present have very little solid kowledge of their profession. All detest cordially the foreign physicians, through patriotism, and also because their pay is higher and more regularly paid than their own.

It is true that the foreign physician may have recourse to civil practice, but this is very poor in Turkish and Arabian countries.

In Mesopotamia, for instance, the native women during labor are submitted to truly barbarous practices. The torments of a woman in a case of dystocia are unheard-of. Talismans are first applied, then the iman recites from the top of the minaret an ecbolic prayer, and casts an egg to the ground; this is an ancient and respected practice. If it fails, the patient is compelled to walk, the feet naked, over the fragments of a broken vase—the sooner she breaks these, the quicker labor will be completed; besides this process, she drinks water from her father's shoe.

When these mild means do not suffice, and the dystocia persists, recourse is had to more energetic proceedings. The woman is placed on her back, and the omnipresent female neighbor works with her hands and feet on the abdomen. By these diverse violent proceedings a number of persons are killed who would otherwise have been saved by very simple intervention. The most difficult part is to induce a Turk to call a physician. The daughter of a bimbaschi (surgeon-major) had a very difficult primiparous labor. All the national expedients were tried inefficaciously, but when a person present spoke of a European practitioner: "My daughter will die if her time has come," gravely replied the good bimbaschi, "but we will never call a man to her assistance."

SPONTANEOUS PERITONITIS.

The well-known Prof. Leyden has an interesting article in the *D. Med. Wochensch.*, March 24, 1884. After laying great stress upon the fact that peritonitis frequently develops itself in a very similar manner to that of pleurisy, he adduces the proof that spontaneous peritonitis doubtless belongs to the great class of infectious diseases.

There are many reasons in favor of this view. The sudden beginning with its obscure cause, the high fever and the local seat of the disease in persons otherwise perfectly healthy, the rapid accumulation of offensive pus, and the undisputed epidemic-like spreading of the disease in a locality, all tend to prove its infectious character.

Concerning treatment, Prof. Leyden admits that thus far antiphlogistic procedures, opium, and inunctions with mercurial ointment, are the only means at our disposal and promising any effect. But he throws up the question, why we should not treat such a peritonitis as we do empyema, and suggests the opening of the peritoneal cavity and its washing out with a disinfectant solution. He also mentions a large number of cases where such an operation was performed, and with a favorable result; and though in these cases an encapsuled abscess could be diagnosticated as the starting-point of the malady, he sees no reason why in other cases, where such a condition does not exist, the same good result should not follow the same operation. It is true, it is easier to wash out the pleural than the intricate peritoneal cavity, still, as most grave cases of purulent spontaneous peritonitis end fatally notwithstanding its

local character, it may be well worth while to try the operation, which cannot increase the evil, but only do good. The main point will be to perform the operation as early as possible, as later, when many adhesions have formed, the thorough emptying and cleansing of the cavity would almost become an impossibility.

It is known that this disease is most frequent in children, and as they do not so easily succumb to operations of this kind as adults do, the procedure, so warmly recommended by Leyden, should be tried, and thus the little sufferers be given a chance to survive the infectious malady.

Notes and Comments.

Rectal Feeding and Alimentation.

Dr. Wm. Julius Mickle gives some very useful hints in a paper on this subject published in the *Journal of Mental Science*. In using nutrient enemata he advises that:

Alcohol should not be added to albuminous food.

If necessary, the bowels should previously be cleared out by a simple or aperient clyster, and a daily copious cleansing clyster is required in some instances. The bowels may have to be rested, but we must persevere if the first attempt fails. Where it is apt to return, the patient's best position to receive the enema is on the back or left side. The nozzle or tube should be comfortably warm, so should the food injected. The amount injected may sometimes with advantage be small at first, gradually increasing from 2 to 10 ounces. If the foods are ejected, we may try the plan (Dr. Hine's) of depositing them higher up in the viscus by means of elastic tubing and a funnel. But plugging the anus is often necessary, and has been done in many cases.

Conflicting as are the results of experiments on the subject, he concludes that the rectum and colon digest but little, and that, even when inverse peristole is set up, the action of the bowel upon enemata is chiefly absorptive. If so, the food should either be introduced mixed with digestive substances, or else before administration should in some way or in some measure be digested, and ready for absorption into the venules and lymphatics of the intestinal walls.

The following methods are all considered good:

Leube. Three parts of meat to one part of pancreas, both finely minced and mixed with a sufficient quantity of warm water for clysis. Carefully remove all fat and connective tissue. The hog's pancreas is the favorite.

Rennie. To a basin of good beef-tea, add ½ lb. shredded lean raw beef; ʒj fresh peps. porci; ʒij. dil. hydrochloric acid; warm for four hours; stir frequently. Beaten egg or alcohol (?) may be added.

Catillon. A saturated solution of 19° C. of peptone of meat, 40 grammes; water, 125 grammes; laudanum, 3 to 4 drops; bicarb. of soda, 3 centigrammes.

Dobell. Cooked, finely-grated beef or mutton, 1 lb.; pancreatic emulsion (Lowry & Moore), 1 oz.; pancreatic powder, 20 grs.; pepsine (pig's), 20 grs. Mix quickly, add half an ounce of brandy, and warm water sufficient to bring it to the consistence of treacle.

Henninger. Very lean meat, finely minced, is placed in a glass receiver; water and HCl. are poured on, and pepsine, at the maximum of its activity, is added. The whole is left in a water-bath or stove to digest for 24 hours at 113° F.; it is then decanted into a porcelain capsule, brought to the boiling-point, and while the liquid boils, a sol. of sod. carb. is added to it, until it shows a very slight alkaline reaction. Then the boiling liquid is passed through a fine linen cloth. The liquid is reduced in bulk in a water-bath. White sugar is added before administration.

Mickle. A pint of milk, with one-fifth or one-fourth of a pint of water, is carefully heated to 140° F. Two drachms of liquor pancreaticus (Benger's) and 20 grains of bicarbonate in solution in one or two ounces of water, are added. The whole, in a covered vessel, is kept near the first at 140° F. for an hour or an hour and a half, then thoroughly boiled for two or three minutes. Thus prepared, the food keeps for half a day or a day.

In rectal medication, Dr. Mickle has made extensive use of enemata of chloral hydrate in many cases of epilepsy and of epileptiform seizures. He gives thirty grains dissolved in two ounces of water, and has found it very useful.

The Treatment of Acute Laryngeal Catarrh.

In the course of some practical remarks which we find in the *London Medical Times*, Dr. J. Burney Yeo tells us that in the early stage the advantage of small doses of opium or morphine in allaying irritation and relieving the cough is most marked. It is well to combine them with small doses of ipecacuanha or tartarized antimony. The adminis-

tration of an eighth of a grain of acetate of morphia with one-twelfth of a grain of tartarized antimony every four or five hours; or four or five grains of the compound ipecacuanha powder every five or six hours, will usually relieve most of the distressing symptoms—the tickling cough, the soreness in the larynx itself, the difficulty in swallowing sometimes present, and the hoarseness or impairment of voice. Warm alkaline drinks are also of much value in thinning the tenacious adhesive mucus which often hangs about the glottis and upper part of the larynx, and is difficult of expulsion; for this purpose a third of a tumblerful of Ems, or Bourboule, or Apollinaris water, to which a tablespoonful or two of hot milk or whey may be added, should be drunk every two or three hours.

When it is not easy to get these mineral waters you can prescribe the following mixture, which answers quite as well:

℞.	Sodæ bicarbonatis,	℥j.
	Sodii chloridi,	gr. xviij.
	Spr. chloroformi,	♏ xxx.
	Aquæ anisi ad.,	℥vj.

M. ft. mist.

Of this mixture two tablespoonfuls should be taken every two or three hours with two tablespoonfuls of hot water or milk.

Counter-irritation and warmth in the shape of a small poultice of mustard and linseed applied over the larynx are of great service. Some, however, prefer cold compresses.

It is of the greatest importance to avoid all causes of further irritation. The patient should therefore be kept to the house, and in one uniform temperature. All exercise of the voice should be forbidden, and the desire to cough should be resisted as much as possible. Violent efforts at coughing irritate and injure the inflamed mucous membrane covering the glottis.

The inhalation of the vapor of hot water or of infusions of demulcent herbs, or warm alkaline sprays, is useful when the cough is hard and dry, and there is difficulty in softening the tenacious and scanty mucous secretions. Direct local applications are rarely advisable in cases of acute catarrhal laryngitis, but they are of great service if the catarrhal condition persists and the case becomes chronic.

Acute laryngeal catarrh is usually a mild and easily managed disease, but it often occurs with troublesome frequency in persons who have to use the voice much in singing or speaking, and it is then more difficult to treat, and tends to become chronic.

Gun-shot Wound of the Stomach: Successful Laparotomy.

From the *Brit. Med. Jour.*, July 12, 1884, we note that Professor Kocher, of Berne, has recently operated with success on a case of gun-shot wound of the stomach. A boy, aged 14, was admitted into hospital half an hour after having received a wound in the region of the stomach, from a pistol-shot aimed at him from a distance of about five paces. He was pale, and complained of abdominal pain; the abdomen was swollen, and distinctly dull on percussion inferiorly. Pressure on the abdomen caused pain. A quarter of an hour later, hiccough, severe epigastric pain, vomiting, pallor, and symptoms of collapse came on. There was tympanitic resonance from the ensiform cartilage to the umbilicus, and complete dullness from the navel downwards and in the flanks; the slightest percussion caused severe pain. Three hours after the injury, laparotomy was performed. On opening the abdominal cavity in the region of the navel, a great quantity of dark blood escaped. The bullet-wound was discovered with comparative ease; it was situated on the anterior surface of the stomach, towards the greater curvature in the direction of the fundus. The wound was circular, with sharp edges, and about half an inch in diameter. The bullet could not be found, nor was there any aperture of exit. The edges of the wound were united, first with two catgut ligatures, like an ordinary wound, and then a continuous silk suture was applied, for the distance of about an inch, so as to invert the serous coat around the wound. Recovery was retarded by an abscess which formed in the track of the sutures in the abdominal wound. Professor Kocher declares that, considering the impossibility of recovery in cases of gun-shot wound of the stomach when active measures are not taken, it is the duty of the surgeon to perform laparotomy whenever an injury of that kind is suspected. The case is recorded in a recent number of the *Korrespondenzblatt für Schweizer Aerzte*, where Professor Kocher publishes several other recent cases of operations on the stomach. Out of three cases of resection of the pylorus, one recovered; a case of gastro-enterostomy, for cancer of the stomach, terminated fatally; one case recovered where the stomach of an agricultural laborer was opened for removal of the end of a corn-catcher, which had broken of during an attempt to extract a large tin nail which the patient had swallowed. The nail itself could not be found. Professor Kocher has also recently performed three gastrostomies for the relief of can-

cerous stricture of the œsophagus. One of the patients died within twelve hours, from collapse; the second died on the third day with septic symptoms. The third recovered, left the hospital, and died suddenly two months after his discharge, apparently from an apoplectic stroke.

The Treatment of Ozæna.

The *Centralbl. für die Gesam. Therapie.* of February, 1884, contains an article on the treatment of ozæna, by Dr. Roth, of Vienna. He objects to the general use of the term as applied alike to all conditions which may cause the particular symptom, and he would use the name ozæna only for what he calls the genuine variety, characterized, not by any decay of the bones or soft parts, but by hyperæmia and hypertrophy of the mucous membrane, with increased quantity and diminished fluidity of the secretion, which rapidly dries, and hardens into cakes. The mucous membrane is often found in parts in a state of atrophy, which seems to be the secondary condition of the foregoing hypertrophy; and this atrophy may extend to the turbinated bones, which will then present no trace of their previous form or structure. The fœtor results from the access of germs to the secretion, as has been proved by experiment. When the anterior and posterior nares have both been stopped, so that no air has been permitted to enter, the fœtor has failed to appear, but has been detected after the secretion has been exposed to the air for some time, when micrococci and bacteria have been found in it in great numbers. The proper name for such an affection is rhinitis chronica atrophicans fœtida, and the indications of treatment are to loosen and remove the secretion, to restore the mucous membrane to its normal condition, to remove the odor, and to cure any prevailing dyscrasia. Dr. Roth effects those ends by means of plugs of cotton-wool, charged with iodoform, which he introduces into the nostrils at night, and removes in the morning. They act as a disinfectant, retain the secretion, and exercise salutary pressure on the mucous membrane, irritating it slightly, so that an increased quantity of blood is brought to it, and the secretion becomes more fluid. After the removal of the plug, the nasal cavities are washed out with a solution of thymol, carbolic acid, or chlorate of potash, combined with alum or tannin, by means of a special nasal spray, which conveys the fluid to the very back of the nose. Special causes must be removed according to their indications, but in the case of tuberculous affections the local treatment should be confined to disinfection, and reliance is to be placed chiefly on general dietetic measures. Dr. Roth concludes by remarking that only those cases which come under treatment in the early stages of hypertrophy are curable, but that, unfortunately, this, obstinate and peculiarly objectionable complaint is generally first seen when atrophy has already begun, and when the treatment of the fœtor is all that can be hoped for, until the mucous membrane, with its glands, is completely destroyed.

Crossing the Legs, and the Mode of Sitting.

In the *Brit. Med. Jour.*, May 10, 1884, we read that M. Delaunay, of Paris, has made an extended and careful investigation to ascertain if, in the majority of cases, the right upper and lower extremity be crossed over the left, or the left over the right, and which side most persons incline to when in the sitting posture. According to M. Delaunay, certain breeds of dogs such as terriers, Newfoundlands, and poodles, cross the right paw over the left. The Chinese and Japanese cross the left arm over the right. Europeans cross the right over the left. M. Delaunay observed, in the *crèches* and *salles d'asiles*, that infants under three years of age cross the left arm over the right, older children crossing the right over the left; sixty per cent. doing so at six years of age. Robust children cross the right arm over the left; the idiotic and weak, including those who are incapable of working, cross the left over the right. The Calmucks and Arabs cross the right over the left, like the Europeans. A great many women cross the left leg over the right. Among the opera-dancers some always cross the right leg over the left, but not one the left over the right habitually; the majority cross the left over the right or the right over the left indifferently. Robust children cross the right leg over the left earlier than their weaker playmates. Persons who cross the right leg over the left lean towards the left when sitting; those who place the left uppermost lean to the right. Hence, consistently with what might have been expected from what is observed in children with regard to crossing legs, until six years of age children lean towards the right, and afterwards towards the left. French schoolmasters, it would appear, try to prevent their pupils from assuming this position, believing that scoliosis results; hence they encourage or enforce the use of elbow-rests (*accoudoirs*), which oblige the children to sit straight—a useless measure according to M. Delaunay, as the position they choose is in conformity with the process of evolution. Tailors affirm that the back

of a pair of trousers is always more worn on the left side than on the right. Left-handed people always sit towards the right. M. Delaunay concludes from these observations that the left brain develops previously to the right, and finally the right predominates.

Sexual Insanity.

In the *Brit. Med. Jour.*, June 28, 1884, Dr. Macleod published a brief paper on this subject. This disease generally occurred in young girls and women from 18 to 24, who were affected with amenorrhœa or dysmenorrhœa. An illustrative case was that of a girl, aged 24, who came of a healthy family, but was not so strong as the others. She was well until 17; menstruation was painful and irregular. Her habits then changed; she became dull, gloomy, and at times irritable. This went on for years. Then she became excitable, and was removed to an asylum for nine months. She did not improve. She then became depressed, and her health fell off. Two months ago, she came to Beverley. She was dull and apathetic, and would not work. She was untidy and dirty in her habits; at times she showed erotic tendencies. She was free from organic disease. Her menstruation was normal; she was somewhat anæmic. These patients manifested erotic tendencies, and frequently masturbated. The character was perverse. The disease was sometimes attributed to disappointment in love, but probably existed before the supposed disappointment. There was often hereditary predisposition, and neurotic tendencies. The disease was characterized by sharp attacks of excitement, followed by apathy. It manifested periodicity. The physical health was generally poor, with anæmia and a general want of development. The prognosis was favorable if the patient lost the characteristics of girlishness and developed into womanhood. In the treatment, the two chief points were the establishment of the menstrual flow, and the restoration of the bodily health. Fat-forming foods, with iron and tonics, were best. Sedatives and stimulants should be avoided. Asylum treatment was the best, where there was a regular system of work.

Resorcin.

Recent investigations have demonstrated that the disagreeable side-effects of resorcin, the nausea and vomiting, are by no means due to the remedy itself, but to the impurities accompanying it. Since the *resorcinum purissimum vel resublimatum* has been in the German market the reports of reliable authors have accumulated, which prove that resorcin, if pure, is the most reliable remedy for vomiting we probably possess, and not only in adults, but also in children. Besides its prompt effect in this regard, it is said also to stimulate and to strengthen to an extraordinary degree the digestive functions of the stomach and of the upper part of the small intestines.

Dr. Justus Andeer, in Munchen (*Allg. Med. Centr. Zeit.*, July 5, 1884), recommends resorcin in these cases, in doses varying from sixteen to forty-eight grains, and draws the attention of the profession to the effect which the remedy exerts in very large doses, such as employed in anæmia and chlorosis. Symptoms of intoxication set in, and the individual under its influence acts like a drunken person. A good *old* red wine (Bordeaux, Macon, etc.,) acts like a specific; a few glasses of it putting at once an end to the symptoms mentioned. This action of the red wine is probably due to its containing iron in considerable quantities.

Salivary Incrustations on Dental Plates.

Dr. James Craig, of Jersey City, N. J., thus writes in the *Dental Cosmos:*

The methods usually resorted to in removing salivary deposits from dental plates are mechanical, viz., by scraping, consuming considerable time, and friction with a wheel brush. The method I have adopted is simple, and may be considered a chemical one. The saliva, having an alkaline reaction, its salts being principally sodium, calcium, and potassium phosphates, forms a deposit that may be removed by using a solution of carbolic acid from 3 to 5 per cent., the strength depending upon the thickness of the incrustation. The carbolic acid being antiseptic and non-corrosive in the strength mentioned does not injure the plate, but keeps it sweet. Theoretically, the carbolic acid, combining with the alkaline bases, forms carbolates, thereby loosening the deposits. By immersing the plate an retiring at night, and allowing it to remain in the solution until the following morning, the incrustation is easily removed by a flow of water from the faucet and gentle friction with a tooth-brush.

Primary Cancer of Bladder.

This condition is not common, yet Dr. Whitney showed a specimen of primary cancer of the bladder, situated in the right posterior wall, and involving the opening of the right ureter, to a recent meeting of the Suffolk District (Mass.) Medi-

cal Society. The right ureter was dilated, as well as the pelvis of the kidney, which was in a condition of hydronephrosis. The left ureter was normal in size, and the kidney showed fatty degeneration of the convoluted tubes. The lumbar glands on the right side were diseased, and the liver was filled with nodules of new growth.

The microscopic examination showed the disease to be of the flat-celled variety of cancer.

The specimen came from an old man who had had hæmaturia for eight months, but no pain. Gradual loss of strength and death.

It is well to bear this case in mind as it may serve to explain some cases of persistent and intractable hæmaturia.

Prickly Heat.

Dr. Henry T. Wharton tells a most distressing case of this affection in the *Lancet*, August 2, 1884, wherein a man of exceptionally good health, who knows nothing of indigestion or biliousness, suffered from most intolerable prickly heat. The eruption appeared most profusely on his back and arms, and the itching was intense. It was finally suggested after all other remedies had failed, that perhaps the short-sleeved light undershirts that he wore in summer might be responsible for the trouble, owing to their inability to absorb the perspiration or to protect the skin from sudden chills. He commenced to wear throughout the summer the thickest long-sleeved shirts, made entirely of wool, such as he wore in the depth of winter. The result was the absolute cessation of the prickly heat.

CORRESPONDENCE.

Sewer Ventilation.

EDS. MED. AND SURG. REPORTER:—

Great cities, indispensable to the business facilities of nations, must at the same time be admitted to be "great sores on the body politic." Their contaminated atmosphere is the enduring source of many dangerous and fatal diseases from which the residents of the open country are exempt. The most fertile origin of some of our most fatal diseases is the gas generated in sewers, caused less by the gas *per se* than by the myriads of microscopic animalculæ and fungi, with their germs and spores, of which this gas is the proper home. By our present imperfect system of sewage pipes, this prolific cause of diphtheria, typhoid fever, and other malignant diseases, is conveyed into every house provided with the *convenience* of drainage pipes; and no system of traps or disinfectants as yet devised has to any perceptible extent served to abate the evil. An adequate amount of disinfectants, however great their individual virtue, would be unattainable, to say nothing of probable negligence in their use.

The proposed plan of the London Sewer Board to solve the question of ventilation of sewers by causing a ventilating passage to be built in the chimney stack of each *new house* when being built, and running the shaft well above the roof of the house, although suggestive of good results, would be at best partial and uncertain in its operation. As a general and more certain method, I would suggest the plan of running a sufficient number of metal pipes from the main sewers into the stacks of furnaces now existing, or to be built for the purpose in the most elevated portions of the city. Whilst the liquid contents of sewers gravitate to the lowest points, the buoyancy of the enclosed gas causes it to ascend to the highest. The draught of a furnace would greatly increase the rapidity of its ascent. Once within the furnace, the gas, with all its power for evil, would be instantly and permanently destroyed.

If there are not now in Philadelphia a competent number of furnaces, others could be erected by the city authorities, the expenses of which might be compensated by leasing to manufacturers and artisans the power thus to be acquired.

I cannot doubt that this plan, if skilfully carried out, in connection with improved pavements and proper facilities for street cleaning, independent of jobbing, would prove of incalculable advantage as regards the question of healthfulness.

I offer these suggestions in the hope that some influential and philanthropical citizens possessing a better knowledge of the practicable working out of the idea, may take it in hand and subject it to a fair and impartial test.

JNO. T. HUDDLESON, M. D.

Glen Mills, Del. Co., Aug. 29, 1884.

Prevention of Conception.

EDS. MED. AND SURG. REPORTER:—

I notice in the REPORTER of August 16th, a note from Dr. Matteson charging Drs. Goodell and Waugh with "cant and humbug," and that the general practitioner "who, from false delicacy, neglects to instruct his gentle patients how to protect themselves without physical injury, and also without sacrificing anything of modesty or morality," is worthy of reproach. As I have understood it, the position of those teachers is, that the methods of preventing conception known to them are, without exception, productive of physical injury, and therefore not to be recommended by the physician. We are thus led to infer that Dr. Matteson either is aware of some method of preventing conception, which is harmless physically, consistent with "modesty and morality," and of which these teachers are ignorant, or that he has evidence to show that some of the methods they condemn are harmless, modest, and moral. In either case it would seem incumbent upon him to show precisely wherein the "humbug" lies, to state explicitly the method which he is in the habit of recommending, and to produce the clinical evidences upon which he bases his judgment. This, rather than a wholesale charge of "cant" and "false delicacy" would seem likely to prove a real contribution to the solution of a vexed question.

L. B. TUCKERMAN, M. D.

Cleveland, O., Aug. 19, 1884.

Borate of Quinine.

EDS. MED. AND SURG. REPORTER :—

Your notes on borate of quinine have made a decided impression on me for several reasons, but one of which I will trouble you about. In this latitude we sometimes have congestive chills, pernicious intermittent, etc., in which condition the administration of quinine is—per orem—simply out of our power. To use a solution hypodermically, the acid necessary in making a solution often causes abscesses, sores, etc. Therefore, if the borate is so readily soluble, it is *the* thing we need, and I hope you will induce some of your city manufacturers to prepare it, or some of the wholesale dealers order some from Europe. And let the readers of the MEDICAL AND SURGICAL REPORTER know of it. S. W. CANTWELL, M. D.

Trenton, Tenn.

NEWS AND MISCELLANY.

The Perkins Tractor.

In the course of an article on "Medical Delusions," in the *Boston Med. and Surg. Jour.*, August 14, 1884, Dr. Albert Day gives the following account of the Perkins tractor:

It is not a century since the Perkins delusion with its metallic tractors turned the heads of many wise and good people. Dr. Elisha Perkins, of Plainfield, Connecticut, invented his tractors, and began practice with them, about the year 1796. One part is composed of steel, and the other seems to be of brass or some metallic compound. The operation consisted in uniting the large ends and then drawing the sharp points over the diseased parts, no incision being made. This being done several times completed the operation.

Dr. Day then publishes a lot of letters which Dr. Perkins received from prominent persons endorsing his tractors, and goes on to say that about the time of the popular excitement occasioned by the wonderful cures by the "tractors," Dr. Benjamin Douglas Perkins, son of Elisha, went to England, the wonderful cures by the magnetic tractors having preceded him. He settled in Leicester Square, London, where he proposed to make good the fame of his father. He then took out a patent for the wonderful "tractors." The most wonderful stories soon obtained general circulation, and the press groaned with pamphlets all vaunting the curative effects of the metallic tractors, which were sold at five guineas the pair. Perkins gained money rapidly; gouty subjects forgot their pains in the presence of this new remedy; the rheumatism fled at its approach, and toothache, which is often cured by the mere sight of a dentist, vanished before Perkins and his marvelous steel-plates.

The benevolent Society of Friends, of whose body he was a member, warmly patronized the invention. Desirous that the poor, who could not afford to pay Perkins five guineas, or even five shillings, for his tractors, should also share in the benefits of that sublime discovery, they subscribed a large sum and built a hospital, called the "Perkinean Institution," in which all comers might be magnetized free of cost. In the course of a few months they were in general use, and their lucky inventor in possession of five thousand pounds.

Dr. Haygarth, an eminent physician of Bath, recollecting the influence of imagination in the cure of disease, hit upon an expedient to try the real value of the "tractors." Perkins' cures were too well established to be doubted, and Dr. Haygarth, without gainsaying them, quietly, but in the face of numerous witnesses, exposed the delusion under which the people labored with respect to the curative medium. He suggested to Dr. Falconer that they should make wooden tractors, paint them to resemble the steel ones, and see if the very same effects would not be produced. Five patients were chosen from the hospital in Bath upon whom to operate; four of them suffered severely from chronic rheumatism in the knee, ankle, wrist, and hip, and the fifth had been afflicted for several months with gout. On the day appointed for the experiments, Dr. Haygarth and his friends assembled at the hospital and with much solemnity brought forth the fictitious tractors; four out of five patients said their pains were immediately relieved, and three of them said they were not only relieved, but very much benefited; one felt his knee warmer, and said he could walk across the room; he tried and succeeded, although on a previous day he had not been able to stir; the gouty man felt his pains diminish rapidly, and was quite easy for nine hours, until he went to bed, when the twitching began again. On the following day the real tractors were applied to all the patients, when they described their symptoms in nearly the same terms. The same experiment was tried in other hospitals with the same results.

An account of these matters was published by Dr. Haygarth in a small volume entitled, "Of the Imagination, as a Cause and Cure of Disorders, exemplified by Fictitious Tractors."

The friends of Perkins were unwilling to confess they had been deceived. They found at last that no one believed in them. The Perkinean Institution fell into neglect, and Perkins made his exit from England, carrying with him about fifty thousand dollars.

Anti-Vaccination Experience.

The following is the experience of a man who refused to have his child vaccinated as narrated in an English legal journal:

"It was an action brought against the governor of Portsmouth jail and two of his wardens for improperly treating the plaintiff while an inmate of the jail. The plaintiff, a commercial traveler, was ordered by a magistrate for the county of Sussex to cause his daughter, Charlotte Mabel Kennard, aged three, to be vaccinated. This he refused to do 'on principle,' as he said. He was consequently summoned before the magistrate and fined. He refused to pay this fine. A distress was accordingly levied on his goods, but was returned unexecuted. The magistrates accordingly ordered the plaintiff to be imprisoned, but without hard labor, for fourteen days in the Portsmouth prison, in default of the payment of the fine. The plaintiff was accordingly arrested and conveyed to Portsmouth jail. There he was or-

dered to take a bath, and whilst he was in the bath his ordinary clothes were taken from him and prison-clothes substituted, which he was compelled to wear. His deceased wife's wedding-ring, which he always wore, was removed from his finger. He was also throughout the fortnight compelled to pick oakum, to sleep on a plank bed, and to take his exercise with the ordinary prisoners. He was also not allowed to procure his own food, although he offered to pay for it, but was compelled to live on the prison fare. Counsel contended that he was not a criminal, subject to prison discipline. Lord Justice Lindley gave judgment for the defendants. This seems *prima facie* a hard case, but if men choose to break the laws, they must not expect any lenity because they act 'on principle.'"

Dental Caries in Normandy.

From a foreign exchange we learn that several departments in Normandy furnish a considerable number of rejections among the recruits drawn for military service. The Seine Inférieure for example, furnishes a mean of 50 per cent. of rejected conscripts. This singular fact in so wealthy a department, in which the population seems strong and prosperous, has excited the attention of Dr. Chervin. He finds that the most frequent malady giving rise to rejection, after cases of "general weakness," which preponderate, is dental caries, which, taking the department altogether, furnishes 15 per cent. If the different cantons in the department are examined, a great difference among them is discovered, varying from 80 per 1,000 the lowest, to 229 the highest number. Pursuing his investigation of the department for twenty years, M. Chervin arrives at the conclusion that race is the chief cause of the predominance of caries. Examining one of the ethnic elements which is the most persistent, and which furnishes most information on the subject of race-stature, he finds that the department is inhabited by two different races, the shorter in the east, and the taller in the west. In the population of the higher stature, dental caries is far more frequent than in that of the lower stature; and this fact is not peculiar to the Seine Inférieure, but is observed also in other departments.

The Placenta of Birds.

The *British Med. Jour.*, August 9, 1884, says:

"Birds have hitherto been considered to be implacentary; but some recent researches by M. Duval, communicated to the Society of Biology of Paris, seem to show that their ova possess a rudimentary form of that characteristic organ of the mammalia. In the course of his investigations, M. Duval has made a number of complete sections of the eggs of small birds, at various stages of incubation, and has found them to be divisible into three layers or levels: 1, that of the large end, which contains the embryo; 2, that of the middle, with the allantois; 3, that of the smaller end, which is occupied by a pouch-like prolongation of the allantois containing albumen. From the wall of this pouch a number of villosities project into its interior. These persist during incubation, and disappear on its completion, the albumen being by that time absorbed. The outside of the pouch is applied to the inner surface of the egg-shell. This villous bag M. Duval takes to be the rudiment of a placenta, and considers that its inner surface is concerned in the nutrition, its outer with the respiratory function, of the embryo."

The Doctor without a Coat.

In the *Med. Record* we read that Prince Bismarck's physician, Dr. Schweininger, who was some time ago made a professor, has now, it is said, been given an order of nobility and made Professor in the Faculty of the Berlin University, with authority to deliver certain courses at Charité. *Apropos* of Dr. Schweininger, the German papers publish in the humorous column the following story: "A servant in Münich was showing the sights to a country visitor. The latter wanted to know all about the figures and statues on the University building. Rather than confess ignorance, his city friend gave the names of distinguished contemporaries to the various gods and goddesses, and other immortals in stone. 'And that figure,' he said finally, pointing to a very classically-dressed statue on the façade of the left wing, 'is Dr. Schweininger.' 'Aha!' said the admiring visitor, 'but where then is his coat?' 'Oh,' replied his friend, 'since he cured Prince Bismarck, the people have sent for him from all over the country, and he has had to travel so hard that he has worn off his clothes!'"

The Virus of Hydrophobia.

The *N. Y. Med. Jour.*, August 23, 1884, published the following letter received by Dr. A. S. Heath, of New York city, in reply to a letter to Pasteur:

"AUGUST 8TH.

"*Sir:* In the absence of M. Pasteur, who is in Copenhagen, I reply to the letter which you addressed to him.

"In an animal that has died of hydrophobia there is nothing virulent except in the saliva, the salivary glands, and the nervous system. The blood, the muscles, and the viscera, do not appear to contain the virus of rabies. I do not know of an instance of inoculation of rabies by the performance of an autopsy.

"The attenuated virus that you ask for is still under investigation. Thus far, it has been tried only on dogs, and in the present state of our knowledge, M. Pasteur would not dare to make one of it on man.

"Accept, sir, the assurance of my highest consideration. DR. ROUX,

"Adjunct Director of M. Pasteur's Laboratory."

Does a Man Own His Head?

One of the questions which an Englishman recently left his heirs to quarrel over, was the right to his head. The deceased had sold it to the local physician in consideration of his paying the funeral expenses, and when the time came for the delivery to be made, he called for it; but the heirs, who said they were perfectly willing to pay the funeral expenses themselves, demurred, and refused to carry out the agreement. The aid of

the courts was then invoked, and at last accounts the matter was not decided. In the meantime, the value of the head for purposes of dissection, if that is what the physician wanted it for, is rapidly diminishing, and soon will be of no value whatever. The English courts have at various times held that there could be no property, in the ordinary sense in which the term is used, in a dead body; and the interesting question now comes up whether the ownership, such as it is, is vested in the person himself or in his representatives.

Victoria and Tasmania as Resorts for Consumptives and Persons Afflicted with Lung Disease.

Dr. J. W. Barrett concludes an article on this subject in the *London Med. Times*, by thus summarizing:

1. That they should, if possible, go out by the fastest and best equipped steamers.
2. That they should go to Melbourne and at once travel north of the dividing range to such places as Sandhurst, or anywhere in the valleys of the Goulburn or Murray.
3. That they should obtain out-door employment on a sheep or cattle station, or some similar place.
4. That, should the summer try them, and the practice of midday rest fail to relieve, they should go to Tasmania for January and February.

That, however, in all cases, they must remember that their place of safety lies north of the great dividing range.

Incomes of English Physicians.

From *Gaillard's Medical Journal*, we learn that of English doctors, Radcliffe made over $35,000 a year in the height of his fame; Mead, $25,000; Baillie, $45,000; Sir H. Halford, $55,000; and Sir B. Brodie $85,000 in the year but one before his retirement, the largest income known. Radcliffe once received $8,000 as special fee for visiting Lord Albemarle at Namur; Granville $5,000 and his traveling expenses for a visit to St. Petersburg; and recently Sir W. Gull $5,000 each for two visits to Pau, and $7,500 for traveling to Perthshire and remaining a week with a patient. But the fee of fees was that received by Dr. Dinesdale in 1768, for inoculating the Empress Catherine and her son at St. Petersburg, viz., $60,000 paid down, a pension of $2,500 for life, and the dignity of a baron.

Items.

—Lawson Tait says: Any woman who has an ovarian tumor removed in her own house is a fool for her pains.

—The Roumanian Government has sent Dr. Maccovich as a "commission" to Marseilles, in order to study the cholera.

—Somnambulism is one of the subjects to be taken up by the committee for the collective investigation of disease in England.

—The British Medical Association created a new section at its recent meeting at Belfast—that of Pharmacology and Therapeutics.

—Clear boiling water will remove tea stains; pour the water through the stain, and thus prevent its spreading over the fabric.

—In the *Brit. Med. Jour.*, June, 28, 1884, Mr. H. A. Latimer reports a case of retained menses from imperforate hymen; epilepsy; operation; recovery, with temporary relief from epilepsy.

—In the Cincinnati *Medical News*, June, 1884, Dr. George W. Vogeler reports two cases of intestinal obstruction; one from impacted fæces; the other by stricture due to cancer.

—Professor R. Harvey, of Calcutta, advocates the use of the forceps in breech presentations in certain cases (*Indian Medical Gazette*, June, 1884). A number of obstetrical authorities have now declared in favor of this innovation.

—A remedy for rhus poisoning is proposed by Mr. Wiegand, in the *Am. Jour. Pharm.*, July. It consists in the application, without friction, of cloths moistened with fluid extract of senega. Two or three applications are said to effect a cure.

—Before undertaking a *post-mortem* examination, Dr. Clevenger recommends holding the hands over strong aqua ammonia, when the smarting will reveal all the sensitive or abraded places that need a touch of the caustic before beginning the examination.

—In a case of death from the eating of raw ham, which occurred recently at Arietta, in Hamilton county, N. Y., and which has been investigated by a committee of the State Board of Health, the muscular tissue of the patient has been found to be swarming with trichinæ.

—"Doctor, I want to thank you for your great patent medicine." "It helped you, did it?" asked the doctor, very much pleased. "It helped me wonderfully." "How many bottles did you find it necessary to take?" "Oh, I didn't take any of it. My uncle took one bottle, and I am his sole heir."

OBITUARY NOTICES.

ROBERT E. ROGERS, M. D.

Dr. Robert Empie Rogers, late Professor of Chemistry in the Jefferson Medical College, of this city, died suddenly on September 6. He was born in Baltimore, Md., in 1814. After a thorough preliminary education he graduated in medicine from the University of Pennsylvania in 1836. From 1844 to 1852 he was Professor of Chemistry in the University of Virginia. He assisted his brother, J. B. Rogers, in preparing his edition of "Turner's Chemistry," and, on his death, succeeded him as Professor of Chemistry in the University of Pennsylvania. Dr. Rogers was a son of the late Dr. P. K. Rogers, of this city, and a brother of James Blyth Rogers, late Professor of Chemistry in the Washington Medical College at Baltimore, and then in the Medical College at Cincinnati. Another brother was Henry Darwin Rogers, the geologist and Fellow of the Royal Society, who died in Glasgow.

In 1877 he resigned his chair in the University to accept a similar position in the Jefferson Medical College, which he held until a few weeks since. Mrs. Rogers died a few years ago. Dr. Rogers leaves no children.